

Unit Label	City	First Name and last Name of the Head of the team	Brief description of the research performed by the team (3 lines)	S to 10 main publications related to the proposed thematic scope	proposed thematic scope	Number of PhD	profile, expertise, training (1)	Number of Post.	profile, expertise, training (1)	Email	Web site	Comments	Comments ITMO		
Avenir Inserm EA 3949	Strasbourg	Hélène DOLLFUS	Understanding the pathogenesis of cilia related clinical manifestations especially in Bardet-Biedl syndrome. Developing a gene therapy project to treat retinal degeneration in ciliopathies.	1. Stoezel C, Muller J, Laurier V, Davis EE, Zaghoul NA, Vicale S, Jacquelin C, Piewniak F, Leitch CC, Sarda P, Hamel C, de Ravel TJ, Lewis RA, Friedrich E, Thibault C, Danse JM, Verloes A, Bonneau D, Katsanis N, Poch O, Mandel JL, Dollfus H. Identification of a novel BBS gene (BBS12) highlights the major role of a vertebrate-specific branch of chaperonin-related proteins in Bardet-Biedl syndrome. <i>Am J Hum Genet.</i> 2007;80(1):1-11. 2. Marini O, Stoezel C, Schmid M, Messingend N, Koch M, Fiori E, Danse JM, Mandel JL, Dollfus H. Transient ciliogenesis involving Bardet-Biedl syndrome proteins is a fundamental characteristic of adipogenic differentiation. <i>Proc Natl Acad Sci U S A.</i> 2009 Feb 10;106(6):1820-5. 3. Marion V, Schlicht H, Mockel A, Callard S, Imhoff O, Stoezel C, van Dijk P, Brandt C, Moulin B, Dollfus H. Bardet-Biedl syndrome highlights the major role of the primary cilium in efficient water reabsorption. <i>Kidney Int.</i> 2010;77(1):11-20. 4. Laugier V, Gubert C, Durand M, Savanoud P, Kristensen U, Vincent MC, Pasquier L, Odent S, Cormier-Daire V, Gener B, Tobias ES, Tolmie JL, Martin-Cejad D, Drouin-Garraud V, Heron D, Journe H, Raffo E, Vignerot J, Lyonnet S, Murday V, Gubert-Mercati D, Funatog B, Bruneton L, Sanchez Del Pozo J, Muñoz E, Gennery AR, Salih M, Noruzinia M, Prescott K, Ramos I, Stark Z, Flecken K, Chabrol B, Sarda P, Edery P, Bloch-Zupan A, Fawcett H, Pham D, Egly JM, Lehmann AR, Sarasin A, Dollfus H. Mutation update for the CSB/ERCC2 and CSA/ERCC2 genes involved in Cockayne syndrome. <i>Hum Mutat.</i> 2010 Feb;31(2):113-26. 5.Mockel A, Perdomo Y, Stutzmann F, Letsch J, Marion V, Dollfus H. Retinal dystrophy in Bardet-Biedl syndrome and related syndromic ciliopathies. <i>Prog Retin Eye Res.</i> 2011 Jul;30(4):256-74.	Study pathogenesis of obesity in ciliopathies	1	Cell biologist, molecular biologist	1	Cell biologist, molecular biologist	dollfus@unistra.fr Helene.dollfus@chru-strasbourg.fr					To support in priority, in the frame of the Network Brazil-France "stem cells and Rare Diseases"
Avenir Inserm EA 3949	Strasbourg	Hélène DOLLFUS	Understanding the pathogenesis of cilia related clinical manifestations especially in Bardet-Biedl syndrome. Developing a gene therapy project to treat retinal degeneration in ciliopathies.	1. Stoezel C, Muller J, Laurier V, Davis EE, Zaghoul NA, Vicale S, Jacquelin C, Piewniak F, Leitch CC, Sarda P, Hamel C, de Ravel TJ, Lewis RA, Friedrich E, Thibault C, Danse JM, Verloes A, Bonneau D, Katsanis N, Poch O, Mandel JL, Dollfus H. Identification of a novel BBS gene (BBS12) highlights the major role of a vertebrate-specific branch of chaperonin-related proteins in Bardet-Biedl syndrome. <i>Am J Hum Genet.</i> 2007;80(1):1-11. 2. Marini O, Stoezel C, Schmid M, Messingend N, Koch M, Fiori E, Danse JM, Mandel JL, Dollfus H. Transient ciliogenesis involving Bardet-Biedl syndrome proteins is a fundamental characteristic of adipogenic differentiation. <i>Proc Natl Acad Sci U S A.</i> 2009 Feb 10;106(6):1820-5. 3. Marion V, Schlicht H, Mockel A, Callard S, Imhoff O, Stoezel C, van Dijk P, Brandt C, Moulin B, Dollfus H. Bardet-Biedl syndrome highlights the major role of the primary cilium in efficient water reabsorption. <i>Kidney Int.</i> 2010;77(1):11-20. 4. Laugier V, Gubert C, Durand M, Savanoud P, Kristensen U, Vincent MC, Pasquier L, Odent S, Cormier-Daire V, Gener B, Tobias ES, Tolmie JL, Martin-Cejad D, Drouin-Garraud V, Heron D, Journe H, Raffo E, Vignerot J, Lyonnet S, Murday V, Gubert-Mercati D, Funatog B, Bruneton L, Sanchez Del Pozo J, Muñoz E, Gennery AR, Salih M, Noruzinia M, Prescott K, Ramos I, Stark Z, Flecken K, Chabrol B, Sarda P, Edery P, Bloch-Zupan A, Fawcett H, Pham D, Egly JM, Lehmann AR, Sarasin A, Dollfus H. Mutation update for the CSB/ERCC2 and CSA/ERCC2 genes involved in Cockayne syndrome. <i>Hum Mutat.</i> 2010 Feb;31(2):113-26. 5.Mockel A, Perdomo Y, Stutzmann F, Letsch J, Marion V, Dollfus H. Retinal dystrophy in Bardet-Biedl syndrome and related syndromic ciliopathies. <i>Prog Retin Eye Res.</i> 2011 Jul;30(4):256-74.	Developp preclinical studies with AA88 for retinal degeneration in BBS KO mice	1	Cell biologist, pharmacologist	1	Cell biologist, pharmacologist	dollfus@unistra.fr Helene.dollfus@chru-strasbourg.fr					To support in priority, in the frame of the Network Brazil-France "stem cells and Rare Diseases"
UG25	Rennes	Michael Primig	We work on reproductive genomics in yeast and mammals. This includes bioinformatics tool development.	1 Execution of the meiotic noncoding RNA expression program and the onset of gametogenesis in yeast require the conserved exosome subunit Rrp6. Lardenois A, Liu Y, Walther T, Chalmel F, Evrard B, Granovskala M, Chu A, Davis RW, Steinmetz LM, Pring M. Proc Natl Acad Sci U S A. 2011 Jan 18;108(3):1058-63. pub 2010 Dec 13. 2 GermiOnline is a genetics resource for yeast and human development, metabolism and cell biology. Lohr M, Gitterer A, Colling A, Gitterer A, Colling A, Lohr M, Rougemont J, Pring M. BMC Bioinformatics. 2009 May 18;10:351. 3 Meiotic non-coding RNA genes are required for meiosis, spermatogenesis and Atm-mediated DNA damage response. Gitterer A, Lohr M, Lohr R, Amanillo I, Collin M, Rougemont J, Pring M. BMC Bioinformatics. 2009 May 18;10:351. 4 Genome-wide expression profiling, in vivo RNA binding analysis, and probabilistic motif prediction reveal ABF1 target genes during fermentation, respiration, and sporulation in yeast. Schlecht U, Erb I, Demougin P, Robine N, Borie V, van Nieuwegen E, Nicolas A, Pring M. Mol Biol Cell. 2008 May;19(5):2193-207. Epub 2008 Feb 27. 5 The conservative transcriptome in human and rodent male gametogenesis. Chalmeil F, Rolland A, Niederhauser-Wiedermann C, Chung SS, Demougin P, Gitterer A, Moore J, Patard JJ, Wolgemuth DJ, Jeagu B, Pring M. Proc Natl Acad Sci U S A. 2007 Mar 20;104(12):8346-51. Epub 2007 Mar 2. 6 The conservative transcriptome in human and rodent male gametogenesis. Chalmeil F, Rolland A, Niederhauser-Wiedermann C, Chung SS, Demougin P, Gitterer A, Moore J, Patard JJ, Wolgemuth DJ, Jeagu B, Pring M. BMC Bioinformatics. 2008 Feb 6;9:86. 7 Expression of meiotic non-coding RNAs in yeast identifies novel candidate genes for roles in the regulation of fertility. Schlecht U, Demougin P, Koch R, Hermidia L, Wiederkehr C, Descombes P, Pineau C, Jeagu B, Pring M. Mol Biol Cell. 2004 Mar;15(3):1031-43. Epub 2004 Jan 12.	Reproductive genomics, regulatory networks in the germline, ncRNAs and exome function in gametogenesis, CT genes, Bioinformatics.	2	Biology, Biotechnology, Informatics	2	Molecular Biology, Developmental biology, yeast cell biology	michael.primig@inserm.fr http://www.inserm.fr					
IGF U661 AVENIR INSERM Team	Montpellier	Jean-Marc Lemaitre	We are interested in the mechanisms involved in cell fate plasticity in physiological and pathological aging and rejuvenation	Cell 2005, Gene Dev 2008, EMBO 2008, MCB 2008, Nat Comm 2011, Genes Dev 2011	Reprogramming the cellular aging phenotype	1	Stem cell Biologist	1	Stem cell Biologist	jean-marc.lemaitre@ifc.cnrs.fr					
Inserm U661	Montpellier	Frederic Bienvenu	Cell Cycle Clock Genomics. We aim at deciphering the transcriptional impact of G1-Cyclins in cancer and in the nervous system. Our ultimate goal is to target Cyclin D1 activity to cure cancer and/or prevent from neurodegenerative diseases like Parkinson.	Cyclin E Constrains Cdks Activity to Regulate Synaptic Plasticity and Memory Formation. Dev. Cell. In Press, Manuscript Number: DEVELOPMENTAL-CELL-D-11-00560R2. A function for cyclin D1 in DNA repair uncovered by protein interaction analyses in mouse cancers. Nature. 2011 Jun 8;474(7350):230-4. Transcriptional role of cyclin D1 in development revealed by a genetic-proteomic screen. Nature. 2010 Jan 21;463(7279):374-8. Transcriptional regulation of a DNA-damage repair form of cyclin D1. Dev Cell. 2005 Apr(16):1850-8.Kaposi sarcoma-associated viral cyclin K overrides cell growth inhibition mediated by oncostatin M through STAT3 inhibition.Blood. 2003 May 15;101(19):4879-86. Functional Interaction of Oncostatin M Transcription Factor with the Coactivator NCoA/SRC2a. J. Biol. Chem. 2002. 277 (10) : 8004-8011.Direct Repression of STAT3 Transcriptional Activation by Cyclin D1 Through a Cdk4 Independent Mechanism. J Biol Chem. 2001;276(20):16840-16847	Analysis of super-order chromatin structure in the regulation of Cyclin D1 gene expression in physiological and pathological situations	1	Molecular or cellular biologists with knowledge in Genomics, proteomics, genetics, bioinformatics	1	Molecular or cellular biologists with knowledge in Genomics, proteomics, genetics, bioinformatics	Frederic.bienvenu@ifc.cnrs.fr http://www.ifc.cnrs.fr/cpn.php?act=clie390					
Inserm Unit U740	Paris	Elisabeth Tournier-Lasserre	Topics: Rare diseases Identification of the genes and mechanisms of hereditary cerebrovascular malformations and Small Vessel Disease of the brain with a specific focus on Cerebral Cavernous Malformations, Moyamoya and CADASIL, using both HTP molecular technologies and characterization of transgenic neurovascular mouse models.	Cerebrovascular malformations topics : -Biology of CCMs: Madaleno L, Belcon A, Arnould M, Gaudric A, Chapon F, Adams RH, Dejana E, Tournier-Lasserre E. Developmental timing of CCM2 loss influences cerebral cavernous malformations in mice. J Exp Med. 2011 Aug;208(18):1835-45. -Mitsunaga S, Butler MG, Herold B, Saret C, Nicloupo JD, Bergametti F, Arnould M, Pham VN, Gore AV, Spengos K, Gaziol S, Wilmant F, Steinberg GK, Weinstein BM, Tournier-Lasserre E. Loss of BRCA3 ubiquitinating enzyme leads to abnormal angiogenesis and is associated with syndromic moyamoya. Am J Hum Genet. 2011 Jun 10;88(6):718-28. -Dejana E, Tournier-Lasserre E, Weinstein BM. The control of vascular integrity by endothelial cell junctions: molecular basis and pathological implications. Dev Cell. 2009 Feb;16(2):209-221. -Lubagé, B, Belcon A, Pettit, N, Chareyre, F, Garcia, LA., Niwa-Kawakita, M., Giovannini, M., and Tournier-Lasserre E. Tissue-specific conditional CCM2 knockout mice establish the essential role of endothelial CCM2 in angiogenesis: implications for human cerebral cavernous malformations. Dis Model Mech. 2009 2(3):168-77.	* PhD level: In most genetic diseases affecting brain and retina vessels, the genes, and mechanisms are unknown. The project aims to identify the genes and mechanisms of hereditary cerebrovascular malformations. We are using state-of-the-art high throughput technologies (WGS sequencing, transcriptomics etc.) taking advantage of the large collections of clinically annotated families gathered in this field. * Post-doc level / Deciphering mechanisms of hereditary cerebrovascular malformations, cerebral cavernous angiomas and Moyamoya, using state of the art approaches in mouse models which are already available in the lab.	1-3	Molecular biology, Molecular genetics, Bioinformatics, Generation and characterization of transgenic or knockout mouse neurovascular models (from embryo to adult mice), Omics	2-3	Molecular biology, Molecular genetics, Bioinformatics, Generation and characterization of transgenic mouse neurovascular models (from embryo to adult mice), Omics	tournier-lasserre@univ-paris-diderot.fr Under construction	The surface of the lab is 450 square meters. Main equipments include : - Molecular biology: Luminescence (Berthold Lumat LB 9507), 10 PCR apparatus (Applied Biosystems Gene Amp PCR Syst 2000); Real time PCR apparatus (MyiQTM Single-Color Real-Time PCR detection system, Biorad); - Applied 3130 capillary sequencing apparatus and a novel 3500 XL machine will arrive within the next 2 months. In addition we have access to a shared HTP sequencing platform. - Radiactive Isotopes manipulation: - Equipment provided by the Research Ministry for the use of P32/P33/35 and C14; Tricarb 1600- Packard scintillating counter - Culture room: - 2 rooms (BioSafety Level 2) fully equipped - Histology / Immunohistochemistry: - Perfusion pump (Masterflex), dissection scopes (Wild/Heerbrugg ; Nikon); paraffin embedding station (Leica E1160); Microtome (Leica RM2125); Ultracut (OMU3, Reichert); Cryostat (Leica CM1850); Microscope (Leica DMR); Fluorescence microscope (Leica DMRB) - Radioactive tritium detector (Tritium Cameras; Nikon Digital Still DXM1200) - Frozen tissue samples and Frozen Cells storage: - Three large capacity -80 °C freezers/10 liquid nitrogen 300 containers / 12 freezers -20 °C / Biobank ADN, peripheral and EBV transformed cell lines > 10 000 samples from patients for whom clinical data are available in the lab) - Cerebrovascular reactive perfusion and cerebral metabolism measurement: - Laser Doppler flowmetry, microdialysis, multichannel recorder (Gould RS 3400), Blood gases analysis (Ciba corning 248), PowerLab /BSP (AD Instruments), ventilation pump (SAR 830/AP, CWE), Non invasive blood pressure monitor for mouse with Powerlab MB55, Analytical Imaging (MCID, Interfocus) - Mouse activity: Arcklik (E8111 motor activity monitor, Panlab) - Computers and bioinformatics : a total of 25 computers, including 2 server machines are available in the lab. One informatician is taking care of our informatics facility. - Animal facility: Mice are housed in the animal facility located on the 4th floor of our building. It is accredited as a Research Animal Facility by the Veterinary Services Head Office of Paris for the Accreditation of Laboratory Animal Care and registered with Police Headquarter of Paris.			To support in priority, in the frame of the Network Brazil-France "stem cells and Rare Diseases"	
UMR 5757	Orsay	Emmanuel Jacquemin (Responsable d'équipe: Laurent Combettes)	PFC1 is an autosomal recessive liver disease caused by mutations in the ABCB11 gene (ATP-Binding Cassette B11) which codes for the bile salt export pump (BSEP). The onset of the disease arises at early neonate or in infancy with a progressive decrease in bile secretion leading to cirrhosis and liver failure. In most cases, liver transplantation is only alternative. Many mutations in the ABCB11 gene have been identified. The objectives of our project are: i) the characterization of abnormal expression and function of many missense mutants, and ii) the development of specific pharmacological therapies aimed at correcting protein dysfunction in genetically selected patients	1-Antoni C, Gherardi G, Leterrier M, Reichenbach P, Steiger B, Davit-Spraul A, Fabre M, Jacquemin E. Relapsing features of bile salt export pump deficiency after liver transplantation in two patients with progressive familial intrahepatic cholestasis type 2. J Hepatol. 2010 Nov;53(5):953-6. 2-Gonzales E, Jacquemin E. Mutation specific drug therapy for progressive familial or benign recurrent intrahepatic cholestasis : a new tool in a near feature ? J Hepatol. 2010;53(2):385-7. 3-Siebold L, Dick AS, Thompson R, Maggiore G, Jacquemin E. The spectrum of liver diseases related to ABCB4 gene mutations: Pathophysiology and clinical aspects. Semin Liver Dis. 2010;30(2):134-46. 4-Davit-Spraul A, Gonzales E, Bauscaran S, Bauscaran S, Gonzalez E, Steiger B, Bernard J, Jacquemin E. ABCB11 analysis in 62 children with normal gamma-glutamyl transferase progressive familial intrahepatic cholestasis (PFC1). Phenotypic differences between PFC1 and PFC2 and natural history. Hepatology. 2010;51(5):1645-55. 6-Gonzales E, Gerhardt MF, Setchell KD, Davit-Spraul A, Vincent I, Heubi JE, Bernard J, Jacquemin E. Oral Cholic Acid for Hereditary Defects of Primary Bile Acid Synthesis: A Safe and Effective Long-term Therapy. Gastroenterology. 2009;137(4):1310-1320.	BSEP mutations and Progressive Familial Intrahepatic Cholestasis (PFC1)	1	Cell biologist	1	Cell biologist	emmanuel.jacquemin@bct.aphp.fr Publish in Biology of the Cell - http://www.biocell.org					
INSERM U781	Paris	MUNINCH Arnold and ROTIG Agnes	We aim at retracing mitochondrial DNA segregation during human embryonal development, by assessing the physiological consequences of a mtDNA mutation over mtDNA metabolism (mtDNA amount, mtDNA replication, mtDNA translation), in order to improve the predictive value of prenatal and preimplantation genetic diagnosis for mtDNA mutations.	1-Poor Correlations in the Levels of Pathogenic Mitochondrial DNA Mutations in Polar Bodies versus Oocytes and Blastomeres in Humans. Gigarel N, Hesters L, Samuels DC, Monnot S, Burlet P, Kerbat V, Lamazou F, Benachi A, Friedman E, Feingold J, Rotig A, Muninch A, Bonnefont JP, Frydman R. Ann J Hum Genet. 2011;88(4):494-8. 2-Segregation of mtDNA Through Human Embryonal Development: m.3243A>G as a Model System. Monnot N, Gigarel N, Samuels DC, Burlet P, Hesters L, Friedman N, Frydman R, Kerbat V, Funalot B, Martonovic I, Benachi A, Feingold J, Rotig A, Muninch A, Bonnefont JP, Frydman R. Fertil Steril. 2011 Jun;95(6):1162-7. 3-Nuclear transfer to prevent mitochondrial DNA diseases: myth or reality? Steffann J, Monnot S, Rotig A, Muninch A, Bonnefont JP. Fertil Steril. 2007 Nov;88(5):1150-6. 4-Statistical analysis of mtDNA transmission load during human embryonal development has implications for the feasibility of prenatal diagnosis in NARP syndrome. Steffann J, Gigarel N, Corcos J, Bonnici-Darcy M, Enchaire F, Puccio M, Puccio H, Yerushalmi J, Frydman R, Muninch A, Bonnefont JP. J. Matern Fetal Neonatal Med. 2007;20(10):664-669. 5-Analyses of mtDNA variant segregation during human embryonic development: a tool for successful NARP preimplantation diagnosis. Steffann J, Frydman R, Gigarel N, Burlet P, Ray P, Fanchin R, Feyereisen E, Kerbat V, Tachdjian M, Bonnefont JP, Frydman R, Muninch A. J. Med. Genet. 2006;43(3):244-247.	Mitochondrial DNA metabolism in human mitochondrial DNA disorders	0	genetics, cell biology	1	genetics, cell biology	julie.steffann@inserm.fr we have a candidate who is experienced in the field and very interested by joining our team					
INSERM U781 PARIS	PARIS	Céline Colnot (ATIP-Avenir team)	Origins and functions of skeletal stem cells in bone development and bone regeneration	2. Colnot, C., de la Fuente, L., Huang, S., Hu, D., Lu, C., St-Jacques, B., and Helms, J. Indian Hedgehog synchronizes skeletal angiogenesis and perichondrial maturation with cartilage development. <i>Development</i> , 2005 March 132(5):1057-1067. 3. Bellantuono, D. J., King, Z., Liu, S., Buckley, J. M., Lotz, J. C., Marcolino, R. S., Werb, Z., Miclau, T., and Colnot, C. Role of Matrix metalloproteinase 13 in both endochondral and intramembranous ossification during skeletal regeneration. <i>PLoS ONE</i> , 2007 Nov 7; 2(11):e1150. Martin I. <i>Development</i> , 2000; 20 Jan; 2009. F1000.com/114893. 4. Colnot, C. Skeletal cell decisions within periosteum and bone marrow during bone regeneration. <i>Journal of Bone and Mineral Research</i> , 2009; 24:274-282. 5. Yu, Y.Y., Liu, S., Lu, C., and Colnot, C. BMP2 stimulates endochondral ossification by regulating periosteal cell fate during fracture repair. <i>Bone</i> , 2010 Jul; 47:65-73. Epub 2010/03/30. 6. Liu, S., Hansen, E., Dedin, R., Behnike, D., Werb, Z., Miclau, T., and Colnot, C. Impaired remodeling phase of fracture repair in the absence of matrix metalloproteinase-2. <i>Disease Models and Mechanisms</i> . 2011 Mar;4(2):203-11.	The goals of our projects are (1) to better characterize the sources of skeletal stem cells that are required for bone regeneration, (2) establish how these cell populations are established during development and growth of the skeleton and (3) to understand how endogenous stem cells are recruited in vivo to participate in bone regeneration. We are investigating the role of stem/progenitor cell populations within bone marrow and periosteum, and of other sources such as muscle, through functional and cell lineage analyses in mouse models of bone regeneration.	1	cell biology	1	cell biologist	celine.colnot@inserm.fr					

INSERM U781	Paris	ASMA SMAHI	Study of molecular mechanisms underlying the inflammatory reaction in patients with generalised pustular psoriasis (von Zumbusch)	*Marrakchi S, Guigle P, Renshaw BR, Puel A, Pei XY, Fraitag S, Zribi J, Bal E, Cluzeau C, Charbier M, Towne JE, Douangpanya J, Pons C, Mansour S, Serre V, Makni H, Mahfoudh N, Fakhfakh F, Bodemer C, Feingold J, Hadj-Rabia S, Favre M, Genin E, Salhabouli M, Munnoch A, Casanova JL, Sims JE, Turki H, Bacheler H. Successful treatment of generalized pustular psoriasis with the interleukin-1 receptor antagonist Anakinra: lack of correlation with IL1RN mutations. <i>Ann Intern Med.</i> 2011 Aug;154(8):620-8. *Viguerie M, Guigle P, Pagès C, Smahi A and Bacheler H. Successful treatment of generalized pustular psoriasis with the interleukin-1 receptor antagonist Anakinra: lack of correlation with IL1RN mutations. <i>Ann Intern Med.</i> 2010 Jul;152(2):113-9.	Genetic and immunological characterization of autosomal recessive generalized pustular psoriasis in four multiplex consanguineous families.	1 molecular and cellular biologist	1 immunologist, cellular biologist <a href="mailto:asma.smahi@inserm.fr">asma.smahi@inserm.fr</a>		
								Important to support	
Inserm U787	Paris	Edgar GOMES	In our lab we are interested in understanding how the cytoskeleton regulates nuclear positioning and what is the role of nuclear positioning during cell migration and myofiber formation. We are also curious to know how mutations in proteins associated with muscular dystrophies interfere with nuclear position during myofiber formation. We use different molecular and cellular approaches in combination with time-lapse imaging analysis to address these questions. More information in <a href="http://www.myologygroup.net/">http://www.myologygroup.net/</a>	Luxton GW*, Gomes ER*, Folker ES, Vintinner E, Gundersen GG. Linear arrays of nuclear envelope proteins harness retrograde actin flow for nuclear movement. <i>Science.</i> 2010 Aug 20;329(5994):956-9. *co-first author Kathryn J. Mitchell Alice Panneire, Bruno Cadot, Ara Parlakian, Vanessa Besson, Edgar R. Gomes, Giovanna Marazzi, and David A. Sasso, "Identification and characterization of a non-satellite cell resident muscle progenitor during postnatal development", 2010, <i>Nature Cell Biology</i> , 2010 Mar;12(3):257-66 Cecilia Ostlund, Eric S. Folker, Jason C. Choi, Edgar R. Gomes, Gregg G. Gundersen, Howard J. Worman, "Dynamics and Molecular Interactions of Linker of Nucleoskeleton and Cytoskeleton (LINC) Complex Proteins", <i>Journal of Cell Science</i> , 2008, v121, p2691-2700 E.R. Gomes, S. Jani, G.G. Gundersen "Nuclear movement regulated by Cdc42, MRCK, myosin, and actin flow establishes MTOC polarization in migrating cells", <i>Cell.</i> 2005, 121:451-63 K.J. Evans, E.R. Gomes, S.M. Reisnecker, G.G. Gundersen, R.P. Lauring "Linking axonal degeneration to microtubule remodeling by Spastin-mediated microtubule severing", <i>J. Cell Biology.</i> 2005, 168: 599-606 D.L. Dujardin, L.E. Barnhart, S.A. Stephan, E.R. Gomes, G.G. Gundersen, R.V. Vallee "A role for cytoplasmic dynein and LIS1 in directed cell movement" <i>J. Cell Biology.</i> 2003, 22:163-1205-11	We have identified multiple unknown nuclear envelope proteins and we are interested how these proteins connect to the actin and microtubule cytoskeleton and how they are involved in nuclear positioning during cell migration	1 cell biology, molecular biology, microscopy, biochemistry	1 cell biology, molecular biology, microscopy, biochemistry <a href="http://nucr.genevieve.org/gomes_group.html">http://nucr.genevieve.org/gomes_group.html</a>		
Inserm U787	Paris	Edgar GOMES	In our lab we are interested in understanding how the cytoskeleton regulates nuclear positioning and what is the role of nuclear positioning during cell migration and myofiber formation. We are also curious to know how mutations in proteins associated with muscular dystrophies interfere with nuclear position during myofiber formation. We use different molecular and cellular approaches in combination with time-lapse imaging analysis to address these questions. More information in <a href="http://www.myologygroup.net/">http://www.myologygroup.net/</a>	Luxton GW*, Gomes ER*, Folker ES, Vintinner E, Gundersen GG. Linear arrays of nuclear envelope proteins harness retrograde actin flow for nuclear movement. <i>Science.</i> 2010 Aug 20;329(5994):956-9. *co-first author Kathryn J. Mitchell Alice Panneire, Bruno Cadot, Ara Parlakian, Vanessa Besson, Edgar R. Gomes, Giovanna Marazzi, and David A. Sasso, "Identification and characterization of a non-satellite cell resident muscle progenitor during postnatal development", 2010, <i>Nature Cell Biology</i> , 2010 Mar;12(3):257-66 Cecilia Ostlund, Eric S. Folker, Jason C. Choi, Edgar R. Gomes, Gregg G. Gundersen, Howard J. Worman, "Dynamics and Molecular Interactions of Linker of Nucleoskeleton and Cytoskeleton (LINC) Complex Proteins", <i>Journal of Cell Science</i> , 2008, v121, p2691-2700 E.R. Gomes, S. Jani, G.G. Gundersen "Nuclear movement regulated by Cdc42, MRCK, myosin, and actin flow establishes MTOC polarization in migrating cells", <i>Cell.</i> 2005, 121:451-63 K.J. Evans, E.R. Gomes, S.M. Reisnecker, G.G. Gundersen, R.P. Lauring "Linking axonal degeneration to microtubule remodeling by Spastin-mediated microtubule severing", <i>J. Cell Biology.</i> 2005, 168: 599-606 D.L. Dujardin, L.E. Barnhart, S.A. Stephan, E.R. Gomes, G.G. Gundersen, R.V. Vallee "A role for cytoplasmic dynein and LIS1 in directed cell movement" <i>J. Cell Biology.</i> 2003, 22:163-1205-11	multiple muscle disorders originate mispositioned nuclei in skeletal muscle. We are studying how mutations associated with these disorders, in particular centronuclear myopathies, give rise to these phenotypes and how are these mutations associated with changes within the muscle fibers	1 cell biology, molecular biology, microscopy, biochemistry	1 cell biology, molecular biology, microscopy, biochemistry <a href="http://nucr.genevieve.org/gomes_group.html">http://nucr.genevieve.org/gomes_group.html</a>		
Inserm U781	Le Kremlin-Bicêtre	Judith MELKI	Genetic basis of motor neuron diseases and arthrogryposis, the fetal expression of neuromuscular diseases. Based on a national cohort of patients, we are applying new genomic technologies to identify new genes having a critical function on the development and maintenance of the neuromuscular system.	LEFEBVRE S., BÜRGLEN L, REBOULLET S, CLERMONT O., BURLET P., VIOLETT L., BENICHOU B., CRAUDU C., MILLAISSE P., ZEVIANI M., LE PASLIER D., FREZAL J., COHEN D., WEISSENBACH J, MUNNICH A. and MELKI J. Identification and characterization of a spinal muscular atrophy determining gene. <i>Cell</i> 1995; 80: 155-165 BÜRGLEN L, AMIEL J., VIOLETT L., LEFEBVRE S., BURLET P., CLERMONT O., RACLIN V., LANDRIEU P., VERLOES A., MUNNICH A. and MELKI J. SMN gene deletion in the arthrogryposis multiplex congenita-spinal muscular atrophy association. <i>Am J Med Genet.</i> 1996; 11:30-113 LEFEBVRE S., BURLET P., QUILHOT C., CLERMONT O., MUNNICH A., DREYFUSS G. and MELKI J. Correlation of severity with the SMN protein level in spinal muscular atrophy. <i>Nature Genetics.</i> 1997; 16: 265-269 CIFUNTES-DIAZ C., FRIGUET T., TIZIANO FD., LACENE E., ROBLOT N., JODHI V., MOREAU JM., MELKI J. Deletion of murine SMN exon 7 directed to skeletal muscle leads to severe muscular dystrophy. <i>J. Cell Biol.</i> 2001; 152: 1107-1114 CIFUNTES-DIAZ C., NICOLLE S., VELASCO D., BORRA-CERBAN C., PANZOZZI C., FRIGUET T., MILLET G., ROBLOT N., JODHI V., MELKI J. Neuronal accumulation at the motor endplate and lack of axonal sprouting in a spinal muscular atrophy mouse model. <i>Hum Mol Genet.</i> 2002 11:1439-47. NICOLLE S., DESFORGES B., MILLET G., LESBORDES J., CIFUNTES-DIAZ C., BERTHELOT P., LANGULIE R., ROBLOT N., JODHI V., MELKI J. Intact satellite cells lead to remarkable protection against Smn gene defect in differentiated skeletal muscle. <i>J Cell Biol.</i> 2005; 161:571-82. TARRADELLS E., COUILLARD S., CHARVIN D., VITTE R., PERIS L., MELKI J. Refined characterization of the expression and stability of the SMN gene products. <i>Am J Pathol.</i> 2007; 171:1269-80. LANDERS JE, MELKI J, MENNINGER V, et al. Reduced expression of the Kinesin-Associated Protein 3 (KIF1A) gene increases survival in sporadic amyotrophic lateral sclerosis. <i>Proc Natl Acad Sci U S A.</i> 2009; 106:9004-9. ATTALI R, WARWAN N, ISRAEL A, GURT I, CADOL M, DE BACKER P, LUCK B, NEVO Y, BEN-NERIAH Z, MELKI J. Mutation of SYNE-1, encoding an essential component of the nuclear lamina, is responsible for autosomal recessive arthrogryposis. <i>Hum Mol Genet.</i> 2009; 18:3462-9.	Genetic investigation of arthrogryposis multiplex congenita of neuromuscular origin	1 molecular genetics; molecular biologist	1 molecular biologist <a href="mailto:judith.melki@inserm.fr">judith.melki@inserm.fr</a>	To support in priority , in the frame of the Network Brazil-France "stem cells and Rare Diseases"	
INSERM U823	Grenoble	Stefan DIMITROV	Our research is focused on chromatin and epigenetics. We are interested in the epigenetic roles of histone posttranslational modifications, chromatin remodeling machines and histone variants under normal and pathological conditions.	*1. Angelov, D. et al.(2003) Molecular Cell 11, 1033-1041 2. Vincent et al. (2004) Molecular Cell, 15(6), 439-452 3. Angelov, D. et al.(2004) The EMBO J., 23, 3815-3824 4. Angelov, D. et al.(2006) The EMBO J., 25, 1669-1679 5. Bouyai et al., 2006, The EMBO J., 25, 4262-4271 6. Ouarab et al. (2006) Genomics, 81(2), 3324-3336 7. Mietton et al. (2009) Mol. Biol. 29:150-156 8. Shukla et al. (2010) Proc. Natl. Acad. Sci. USA 107(5):1936-41 9. Shukla et al. (2010) Proc. Natl. Acad. Sci. USA 107, 9620-9625 10. Syed et al. (2010) Proc. Natl. Acad. Sci. USA 107, 9620-9625	Epigenetic roles of histone posttranslational modifications, chromatin remodeling machines and histone variants under normal and pathological conditions.	2 Ph.D. students	(1) Chromatin biology (2) Cell biology (3) Molecular biology	2 Post-docs (1) Chromatin biology (2) Cell biology (3) Molecular biology <a href="mailto:dimitrov@ufr-grenoble.fr">dimitrov@ufr-grenoble.fr</a>	
INSERM U823	Grenoble	Saadi Khochbin	This team develops highly interconnected basic and translational research programs in the field of male genome programming and somatic cancers	1-Tan et al., Identification of 67 histone marks and histone lysine crotonylation as a new type of histone modification. <i>Cell.</i> 2011 Sep 16;148(6):1038-28 2-Reynold et al., Oncogenes by sequestration of CBP/p300 in transcriptionally inactive hyperacetylated chromatin domains. <i>EMBO J.</i> 2010 Sep 12;29(17):2943-52. 3-Govin et al., Systematic screen reveals new functional dynamics of histones H3 and H4 during gametogenesis. <i>Genes Dev.</i> 2010 Aug 15;24(16):1772-86. 4-Morinobe et al., Cooperative binding of two acetyltransferases to a nucleosome tail by a single bromodomain. <i>Nature.</i> 2009 Oct 1:461(7264):664-8. 5-Sasaki et al., Real-time imaging of histone H4 hyperacetylation in living cells. <i>Proc Natl Acad Sci U S A.</i> 2009 Sep 22;106(38):16257-62. 6-Bouyai et al., Cooperative binding of two acetyltransferases to a nucleosome tail by a single bromodomain. <i>Nature.</i> 2009 Oct 1:461(7264):664-8. 7-Delaval et al., Differential histone modifications mark mouse imprinting control regions during spermatogenesis. <i>EMBO J.</i> 2007 Feb 7;26(6):720-9. 8-Govin et al., Pericentric heterochromatin reprogramming by new histone variants during mouse spermatogenesis. <i>J Cell Biol.</i> 2007 Jan 29;176(3):283-94. 9-Bouyai et al., HDAc6-p97/VCP controlled polyubiquitin chain turnover. <i>EMBO J.</i> 2008 Jul 26;25(14):3357-66 10-Cai et al., HIV-1 targets Tip60 to impair the apoptotic cell response to genotoxic stresses. <i>EMBO J.</i> 2005 Jul 20;24(14):2634-45	The candidate will work on specific strategies to use our knowledge of male-specific epigenetic factors, which are aberrantly expressed in somatic cancers, as a mean to specifically target the malignant cells.	3 Ph.D. students with a knowledge of chromatin and epigenetic processes	Chromatin biology, postylation, biology, molecular and cellular biology and bio-informatics	<a href="mailto:khochbin@ufr-grenoble.fr">khochbin@ufr-grenoble.fr</a>	
Inserm U827	Montpellier	Mireille CLAUSTRES	Our team investigates molecular mechanisms responsible for rare genetic diseases (i.e. Abnormal splicing or transcription, microRNAs, epigenetic marks); it also develops dedicated bioinformatic tools and locus specific databases.	1. Functional analysis of a promoter variant identified in the CTNNB1 gene in a of a frameshift mutation.Yan V, et al. Eur J Hum Genet [Publ ahead of print] 2011 2. Pure intronic rearrangements leading to aberrant pre-mRNA processing in dihydropyrimidine dehydrogenase. a new class of mutations? Khalili MM, et al. Hum Mutat.32(4):467-75. (2011) 3. Heterochromatic genes undergo epigenetic changes and escape silencing in iCFY syndrome. Brum ME, et al. PLoS One.29(6):e19464. (2011) 4. Variants in CTNNB1 untranscribed regions are associated with congenital bilateral absence of the vas deferens. Lopez E, et al. J Med Genet. 48(3):152-9. (2011) 5. Nasal epithelial cells are a reliable source to study splicing variants in Ush3 syndrome. Vacchelli C, et al. Hum Mutat. 31(6):734-41. (2010) 6. NF-E2-related factor 2, a key inducer of antioxidant defences, negatively regulates the CTTR transcription. René C, et al., Cell Mol Life Sci. 67(13):2597-309. (2010) 7. The USH2A c.22996G>T mutation dating its common origin in a Southern European population. Allier E, et al., Eur J Hum Genet. 18(7):99-93. (2010) 8. Ex vivo splicing assays of mutations at noncanonical positions of splice sites in USH3 genes. Le Guedard-Mereutez S, et al., Hum Mutat. 31(3):347-55. (2010)	To develop high throughput approaches based on next generation sequencing technologies for gene expression profiling (transcriptome, splicing isoforms, microRNAs, epigenetics) or identification of disease genes (targeted exome sequencing).	1 Molecular biology, cell biology, cell biology, human genetics 2 Molecular biology, cell biology, human genetics, skills in bioinformatics	<a href="mailto:mireille.clausters@inserm.fr">mireille.clausters@inserm.fr</a>	Invited by Brazilian colleagues to present their research in the Genetics Congress in Brazil in 2012	Important to support
INSERM U830	Paris	René-Marc MEGE	The general scope of the team is the study of the molecular mechanisms of cadherin-based cell adhesion and associated cytoskeletal dynamics regulating neuro-epithelial and neuronal cell migration. A particular interest is given to acto-myosin and microtubule related mechanisms involving mechano-transduction and mechanosensing at cell-cell contacts as well as cell polarization. This implication of these regulations in neuronal cell and neurites migration is central.	Gavard J.; Lambert M.; Grosheva I.; Martiens V.; Irinopoulou T.; Riou J-F.; Bershadsky A. et Mégé R.M. Lamellipodium extension and cadherin adhesion: two cell responses to cadherin activation relying on distinct signalling pathways. <i>J Cell Sci.</i> 2004; 117: 257-270. Thoumine O.; Lambert M.; Mégé R.M. and Choquet D. Regulation of N-cadherin dynamics at neuronal contacts through ligand binding and cytoskeletal coupling. <i>Mol Biol Cell.</i> 2005; 17: 862-875. Thoumine O.; Lambert M.; Mégé R.M. and Choquet D. Regulation of N-cadherin dynamics at neuronal contacts through ligand binding and cytoskeletal coupling. <i>Curr Opin Cell Biol.</i> 2006; 18:541-548. Lambert M.; Gavard J.; Lambert M.; Padilla F.; Monnet C.; Castellani L.; Lambert M. et Mégé R.M. Functional properties of cadherin-11, a cell adhesion receptor involved in motor axon elongation and fasciculation. <i>Mol. Cell. Neurosci.</i> 2005, 29: 715-726. Lambert M.; Gavard J.; Lambert M.; Choquet D. et Mégé R.M. Cadherin-11 interacts with the FGFR receptor and induces neurites outgrowth through associated downstream pathways. <i>Cell. Signal.</i> 2008; 20: 1061-1072. Bard L.; Boscher C.; Lambert M.; Mégé R.M.; Choquet D. et Thoumine O. A molecular clutch between the actin flow and N-cadherin adhesions drives growth cone migration. <i>J. Neurosci.</i> 2008; 28:5879-90. Gianonne G.; Mégé R.M. et Thoumine O. Multi-level clutches in motile cell processes. <i>Trends Cell Biol.</i> 2009; 19:475-486. Ladoux B.; Anil; Lambert M.; Rabotey A.; Hersen P.; Buguin A.; Silberman P.; et Mégé R.M. Strength dependence of cadherin-mediated adhesions. <i>Biophysical J.</i> 2010; 98 : 534-542.	Molecular biology of intercellular adhesion, mechano-transduction at cell-cell contacts	1 Cell biologist or Biochemist	1 Cell biologist	<a href="http://www.ijs9.ufr.in">http://www.ijs9.ufr.in</a>	
CECS/Istem	Evry	Alexandra BENCHOUA	Our team used human pluripotent stem cells to study pathologies affecting brain development	1: Claire Boissart, Xavier Nissan, Karine Giraud-Tribout, Marc Peschanski, Alexandra Benchoua. MIR 125 potentiates early neural specification of human embryonic stem cells, 2012 Development. Apr;139(7):1247-57. 2: Alexandra Benchoua and Brigitte-Ontentiente Intracerebral transplantation for neurological disorders. Lessons from developmental, experimental and clinical studies, Frontiers in Cellular Neuroscience. 2012 Jan 27(6) doi: 10.3389/fncel.2012.00002 3: Benchoua A, Tricoulier Y, Diguet E, Malgrange C, Gaillard MC, Dufour N, Elalouf JM, Krajewski S, Hantraye P, Déglon N, Brouillet E. Dopamine determines the vulnerability of striatal neurons to the N-terminal fragment of mutant huntingtin through the regulation of mitochondrial complex II. <i>Hum Mol Genet.</i> 2008 May 15;17(10):1446-56. <i>Pubmed PMID: 18276960; PubMed Central PMCID: PMC2367694.</i> 4: Lowell S, Benchoua A, Heavey B, Smith AG. Notch promotes neural lineage entry by pluripotent embryonic stem cells. <i>PLoS Biol.</i> 2006 May;4(5):e121. <i>Pubmed PMID: 16594731; PubMed Central PMCID: PMC1431581.</i> 5: Benchoua A, Tricoulier Y, Zala D, Gaillard MC, Lefort N, Dufour N, Saoudou F, Elalouf JM, Hirsch E, Hantraye P, Déglon N, Brouillet E. Involvement of mitochondrial complex II defects in neuronal death produced by N-terminus fragment of mutated huntingtin. <i>Mol Biol Cell.</i> 2006 Apr;17(4):1652-63. <i>Pubmed Feb 1.</i>	Autism spectrum disorders	1 cell biologist	0	<a href="mailto:abenchoua@istem.fr">abenchoua@istem.fr</a>	
Item.CECS	Evry	Christian PINSET	The objectives of the muscular disease team are to explore and validate the potential of human and dog pluripotent stem cells - human Embryonic Stem (hES) cells and induced Pluripotent Stem (iPS) cells - and their differentiated progenies to design new therapeutic strategies for muscles diseases such as Duchenne muscular dystrophy	1) Intraparenchymal injections of autologous muscular cells in women with refractory stress urinary incontinence: a prospective study.Sébe P, Doucet C, Cornu JN, Clouf C, Costa P, de Medina SG, Pinset C, Haab F. Int Urogynecol J. 2011 Dec;22(12):1839-46. 2) Real-time monitoring of cell transplantation in mouse dystrophic muscles by a secreted alkaline phosphatase reporter gene.Gerard X, Vignaud L, Charles P, Pinset C, Scherman D, Kichler A, Israeli D. <i>Gene Ther.</i> 2009 Jun;16(6):615-9. 3) Cell cycle-dependent induction of endogenous myogenin (myoD) gene expression by Myf5.Lindon C, Alibagi D, Pinset C, Montaraz C, D'Dev B. <i>Dev Biol.</i> 2001 Dec; 15:240(2):574-84. 4) Cell cycle-regulated expression of the muscle determination factor Myf5 in proliferating embryonic stem cells.Lindon C, Montaraz C, D'Dev B. <i>Dev Biol.</i> 2001 Dec; 15:240(2):574-84. 5) Quantitative estimation of minor mRNAs by cDNA-polymerase chain reaction. Application to dystrophin mRNA in myogenic and brain cells.Cheilly J, Montaraz D, Pinset C, Berwald-Netter Y, Kaplan JC, Kahn A. <i>Eur J Biochem.</i> 1990 Feb;148(1):691-8	The objective is to derive skeletal muscle precursors cells from hES and iPS from healthy and DMD patients. Many protocols were described to derive cardiac and smooth muscle cells from human pluripotent stem cells (hES and iPS). On the opposite, until now no team could isolate in convincing manner muscle striated precursors cells from human pluripotent stem cells. Many complicated documents indicate that the various stages of cellular specification and under the different differentiation conditions, factors of which come are implicated in cell signalling, a critical issue in development. For muscle specification, a series of proteins, hormones as well as small molecules have been proposed. It is very probable that these molecules can in combination generate a specific signal. The number of combinations to test require the use of an automated process. The number of elements in the matrix. The target cell population as well as tissue culture conditions HTC technologies to follow the readout of differentiation.	1 Cell biologist, cell therapy No 2 engineers	Reprogramming,Tissue culture, expression analysis,animal models	<a href="http://www.item-istem.fr">http://www.item-istem.fr</a>	Muscle disease group is a new team inside itemen Institute dedicated to the development of treatments intended for monogenic diseases, founded on the strong potential of stem cells for substitutive and regenerative therapies. To support in priority, in the frame of the Network Brazil-France "stem cells and Rare Diseases"

INSERM U-51-STEM, AFM, Institut for Therapy and Exploration of Monogenic Diseases	Evry	Xavier Nissan	Project also known as Hutchinson-Gilford Progeria Syndrome (HGPS). It is a rare, fatal genetic disease characterized by an appearance of accelerated aging in children. The principal objective of our team is to use pluripotent stem cells to set up an <i>in vitro</i> pharmacological model of HGPS suitable for drug discovery and pharmacological studies.	miR-125 potentiates early neural specification of human embryonic stem cells. Xavier Nissan, Lionel Larrière, Manoubia Saldaní, Ilse Hurban, Cédric Deloeyre, Jessica Feteira, Gilles Lemaitre, Marc Peschanski, Christine Baldechi. <i>Proc Natl Acad Sci U S A</i> . 2011 Sep 6;108(36):14861-6. miR-203 modulates epithelial differentiation of human embryonic stem cells towards epidermal stratification. Xavier Nissan, Jérôme Denis, Manoubia Saldaní, Gilles Lemaitre, Marc Peschanski, Christine Baldechi. <i>Dev Biol</i> . 2011 Aug 15;356(2):506-15. Human embryonic stem-cell derivatives for full reconstruction of the pluristratified epidermis: a preclinical study. Hind Guenou, Xavier Nissan, Fernando Larcher, Jessica Feteira, Gilles Lemaitre, Manoubia Saldaní, Marcella Del Rio, Christine Barrault, François-Xavier Bernard Marc Peschanski, Gilles Waksman and Christine Baldechi. <i>The Lancet</i> . 2009 Nov 21;374(9703):745-53.	Health, stem cells, pharmacology, progeria	1 Cell biologist	1 Cell biologist	xnissan@istem.fr	www.istem.eu	To support in priority, in the frame of the Network Brazil-France "stem cells and Rare Diseases"
INSERM U861	Evry	Christine Baldechi	Modeling pigmentary defects of the neurofibromatosis type 1 using pluripotent stem cells	[1] Functional melanocytes derived from human pluripotent stem cells engraft into pluristratified epidermis. Xavier Nissan et al. <i>Proc Natl Acad Sci U S A</i> . 2011. [2] miR-203 modulates epithelial differentiation from human embryonic stem cells towards epidermal stratification.Nissan et al. <i>Dev Biol</i> . 2011. [3] Human embryonic stem-cell derivatives for full reconstruction of the pluristratified epidermis: a preclinical study. Guenou H et al. <i>Lancet</i> 2009;43(12):CD98hc [SLC3A2] is a key regulator of keratinocyte adhesion. Lemaitre G et al. <i>J Dermatol Sci</i> . 2011.	pluripotent stem cells/ melanocytes/ gerodermostes	cell culture of pluripotent stem cells and epidermis cells, Molecular biology	1 cells and epidermis cells, Molecular biology	cbaldechi@istem.fr		To support in priority, in the frame of the Network Brazil-France "stem cells and Rare Diseases"
INSERM UMR_5910	Marseille	NICOLAS LEVY	Role of nuclear lamins and molecular partners in premature aging inherited diseases and acquired diseases.	[1] Splicing-related therapy in a new mouse model of human accelerated aging. Olorio et al., <i>Sel Transl Med</i> . 2011 Oct 26;3(10):100-107. [2] Type B mandibuloaural dysplasia with congenital impotency due to homozygous ZMPSTE24 nonsense mutation. Ben Iwu et al., <i>Eur J Hum Genet</i> . 2011 Jan 26. [3] Novel Franshampe mutations of the ZMPSTE24 Gene in Two Siblings Affected with Restrictive Dermopathy and Review of the Mutations. Described in the Literature. Smigiel R et al. <i>Am J Med Genet A</i> . 2010 Feb;152A:447-52. [4] Novel U3A mutation in a family case of atypical Werner syndrome presenting with severe atherosclerosis and acute ischemic disease. Renard et al., <i>Stroke</i> 2005;40:e11-14. [5] HGPS and related premature aging disorders: from genomic identification to the first therapeutic approach. Pereira et al., <i>Mechanisms of Aging and Development</i> . 2008;129:449-459. [6] The association of Hutchinson-Gilford Progeria and malignancy. Shalev et al., <i>Am J Med Genet</i> . 2007;143:1821-1824. [7] Loss of ZMPSTE24 (FACE-1) defects cause nuclear organisation and identify Restrictive Dermopathy as a lethal neonatal laminopathy. De Sandre-Giovannoli et al., <i>Science</i> . 2003 Jun 27;300(5628):205. [8] Lamin A and ZMPSTE24 (FACE-1) genes are required for normal laminin-linked premature aging diseases on patients cell lines and mouse models ; identification of novel therapeutic targets and approaches.	further characterisation of the molecular mechanisms underlying lamin-linked premature aging diseases on patients cell lines and mouse models ; identification of novel therapeutic targets and approaches.	cell biology, molecular biology, genetics, gene therapy; additionally, several team members are MDs/PhDs with clinical or laboratory skills and activities; one bioinformatician is permanently recruited in the research unit	1 MDs/PhDs with clinical or laboratory skills and activities; one bioinformatician is permanently recruited in the research unit	nicolas.levy@univ-amu.fr	http://umr5910.univ-mrs.fr	The U910 scientific environment is highly dynamic and involves frequent and stimulating interactions between clinicians and fundamental researchers, representing a fertile ground for translational research and applications. To support in priority, in the frame of the Network Brazil-France "stem cells and Rare Diseases"
Inserm U910	Marseille	Bernard Binetruy	Molecular mechanisms of differentiation of ES and iPS cells Isolation, validation and characterization of human iPSC lines from patients suffering monogenetic diseases	[1] Botti, M; Asnadi, L; Caron, P; C. Even, N; Belmonte, M; Prot, C; Dani, P; Hofman, G; Pages, J; Poyssegur, Y; Le Marchand and B. Binetruy. The erk1 isoform is specifically required for <i>in vitro</i> and <i>in vivo</i> adipogenesis. <i>Diabetes</i> , 2005, 54, 402-411. [2] Botti, F; Asnadi, M; Caron, L; Binetruy, B. The role of MAPKs in adipocyte differentiation and obesity. <i>Biochimie</i> , 2005, 87, 51-56. [3] Caron, M; Prot, M; Belmonte, M; Roland, F; Botti, B; Binetruy. The erk1 repressor provides a negative gene expression switch in undifferentiated and differentiated embryonic stem cells. <i>Cellular and Molecular Life Sciences</i> , 2005, 62(14):1605-12. [4] Caron, M; Prot, M; Belmonte, M; Roland, F; Botti, B; Binetruy, B. The erk1 isoform is required for the differentiation of ES cells in megakaryocytic lineage. <i>Journal of Cell Science</i> , 2005, 118(12):2831-2839. [5] M. Asnadi, K. Laurent, M. Prot, Y. Le Marchand-Brustel, B. Binetruy & F. Botti, Inhibition of p38MAPK increases adipogenesis from embryonic to adult stages. <i>Diabetes</i> , 2006 Feb;55(2):281-?> authors. [6] M. Asnadi, F. Botti, K. Laurent, M. Prot, Y. Le Marchand-Brustel, B. Binetruy & F. Botti, Inhibition of p38MAPK increases adipogenesis from embryonic to adult stages. <i>Diabetes</i> , 2006 May;45(5):1399-406. [7] Asnadi, M; Prot, M; Belmonte, M; Roland, F; Botti, B; Binetruy, B. The erk1 isoform is required for <i>in vitro</i> and <i>in vivo</i> adipogenesis. <i>Diabetes</i> , 2005, 54, 402-411. [8] Binetruy, B; Heaney, J; Botti, F; Caron, L; Asnadi, M. Concise review: regulation of embryonic stem cell lineage commitment by integrin-activated protein kinases. <i>Stem Cells</i> , 2007 May;25(5):1095-9. [9] Asnadi M, Jager J, Laurent K, Gonzalez T, Le Marchand B, Binetruy F, Tardif JJ, Botti F. p38MAPK kinase activity is required for human primary adipocyte differentiation. <i>FEBS Lett</i> . 2007 Dec 11;581(25):5591-6. [pubd 2007 Nov 13]. [10] E. Berardi, O. Hadzheva, F. Perrini, V. R. Renaulj, J. Hadjil, R. Tournaire, D. Negre, I. Juan-Vaque, C. Alesi & B. Binetruy. p38MAPK Controls Two Successive Steps During the Early Mesodermal Commitment of Embryonic Stem Cells. <i>Stem Cells &amp; Development</i> , 2010 Nov 24. [Epub ahead of print]. 2011, 20(7):1213-1246. [11] Botti, M; Asnadi, L; Caron, P; C. Even, N; Belmonte, M; Prot, C; Dani, P; Hofman, G; Pages, J; Poyssegur, Y; Le Marchand and B. Binetruy. The erk1 isoform is specifically required for <i>in vitro</i> and <i>in vivo</i> adipogenesis. <i>Diabetes</i> , 2005, 54, 402-411. [12] Asnadi, M; Prot, M; Belmonte, M; Roland, F; Botti, B; Binetruy. The erk1 repressor provides a reversible gene expression switch in undifferentiated and differentiated embryonic stem cells. <i>Cellular and Molecular Life Sciences</i> , 2005, 62(14):1605-12. [13] Caron, P; Botti, M; Prot, P; Belmonte, M; Roland, F; Botti, B; Binetruy. The erk1 repressor provides a reversible gene expression switch in undifferentiated and differentiated embryonic stem cells. <i>Cellular and Molecular Life Sciences</i> , 2005, 62(14):1605-12. [14] Caron, P; Botti, M; Prot, P; Belmonte, M; Roland, F; Botti, B; Binetruy. A new role for the oncogene MAPK2/A2 transcription factor in megakaryocytic differentiation. <i>Journal of Cell Science</i> , 2005, 118(12):2831-2839. [15] Asnadi, M; Binetruy, B; Caron, L; Le Marchand-Brustel, Y; Botti, F. Myoblasts and myofibroblasts express different MAPKs during development and differentiation. <i>Journal of Cell Science</i> , 2006 Sep;119(18):4263-70. [pubd 2006 Aug 18]. [16] Asnadi, M; Heaney, J; Caron, L; Asnadi, M; Binetruy, B. The erk1 isoform is required for <i>in vitro</i> and <i>in vivo</i> adipogenesis. <i>Diabetes</i> , 2006 May;45(5):1399-406. [17] Asnadi, M; Jager J, Laurent K, Gonzalez T, Le Marchand B, Binetruy F, Tardif JJ, Botti F. p38MAPK kinase activity is required for human primary adipocyte differentiation. <i>FEBS Lett</i> . 2007 Dec 11;581(25):5591-6. [pubd 2007 Nov 13]. [18] E. Berardi, O. Hadzheva, F. Perrini, V. R. Renaulj, J. Hadjil, R. Tournaire, D. Negre, I. Juan-Vaque, C. Alesi & B. Binetruy. p38MAPK Controls Two Successive Steps During the Early Mesodermal Commitment of Embryonic Stem Cells. <i>Stem Cells &amp; Development</i> , 2010 Nov 24. [Epub ahead of print]. 2011, 20(7):1213-1246.	isolation, validation and characterization of human iPSC lines from patients suffering monogenetic diseases	1 Cell biologist	1 Cell Biologist	Bernard_Binetruy@univ-amu.fr		The U910 scientific environment is highly dynamic and involves frequent and stimulating interactions between clinicians and fundamental researchers, representing a fertile ground for translational research and applications. Two clinical trials have already been started in the recent years, based on preclinical results issued from U910 teams, one of which on Hutchinson-Gilford Progeria. To support in priority, in the frame of the Network Brazil-France "stem cells and Rare Diseases"
INSERM U939	Paris 75012	Serge Amselem	Research programs dedicated to the study of the molecular and cellular bases of several human genetic disorders (rare diseases)	1. Mervelle AC*, Davis EE*, Becker-Heck A*, Legendre M*, Georges M, Lequarré A*, Katsanis N*, Omran H*, Amselem S*. CDCC39 is required for assembly of inner dynein arms and the dynein regulatory complex as well as normal centrosome function. *indicates contributed equally to the work. 2. Duquesnoy P, Escudier E, Vincente C, Clement A, Escalier D, Bastin P, Mitchell DR, Amselem S. Loss-of-function mutations in the human ortholog of Chlamydomonas reinhardtii ODA1 disrupt dynein arm assembly and cause primary ciliary dyskinesia. <i>Am J Hum Genet</i> . 2009;85(6):890-6. 3. Jérôme I, Duquesnoy P, Fernandez-Almeida T, Grateau K, Gonzalez T, Tardif JJ, Botti F. p38MAPK kinase activity is required for primary cilium formation. <i>FEBS Lett</i> . 2007 Dec 11;581(25):5591-6. [pubd 2007 Nov 13]. 4. Duriez B*, Duquesnoy P*, Fernandez-Almeida T, Grateau K, Gonzalez T, Tardif JJ, Botti F. p38MAPK kinase activity is required for primary cilium formation. <i>FEBS Lett</i> . 2007 Dec 11;581(25):5591-6. [pubd 2007 Nov 13]. 5. Panizzi L, Lequarré A, Mervelle A, Le Bouc Y, Amselem S. Loss of constitutive activity of the growth hormone secretagogue receptor in familial short stature. <i>J Clin Endocrinol</i> . 2006;164(6):733-41. [co-first authors] 6. Amselem S, Lequarré A, Mervelle A, Le Bouc Y, Tardif JJ, Botti F. A new role for the oncogene MAPK2/A2 transcription factor in megakaryocytic differentiation. <i>Journal of Cell Science</i> , 2005 Sep;118(18):4263-70. [pubd 2005 Aug 18]. 7. Machinis K, Pantel J, Abribol M, Binetruy B, Le Marchand-Brustel Y, Tardif JJ, Botti F. p38MAPK kinase activity is required for primary adipocyte differentiation. <i>FEBS Lett</i> . 2007 Dec 11;581(25):5591-6. [pubd 2007 Nov 13]. 8. Netchina I, Sobrier ML, Krude H, Grüters A, Amselem S. Mutations in the LIM-homeobox LHX3 gene result in a new syndrome revealed by combined pituitary hormone deficiency. <i>Nature</i> , 2000, 25(2):182-6. 9. Papini S, Duquesnoy P, Cazeneuve C, Pantel J, Coppey-Moisant M, Dargemont C, Amselem S. Alternative splicing at the MEFV locus involved in familial Mediterranean fever regulates translocation of the marenostrin/pyrin protein to the nucleus. <i>Hum Mol Genet</i> , 2000, 9(20):3001-9. 10. Cazeneuve C, Arapyan H, Papin S.... Grateau G, Sarkisian T, Amselem S. Identification of MEFV-independent modifying genetic factors for familial Mediterranean fever. <i>Am J Hum Genet</i> , 2000;67(15):1136-43.	3 main themes: 1/ Primary ciliary dyskinesia and related disorders of the axoneme (ciliopathies), 2/ Auto inflammatory syndromes, 3/ Growth disorders of endocrine origin (abnormal pituitary development and somatotrophic axis)	1 cell biology in priority (and genetics if possible)	2 cell biology in priority (and genetics if possible)	serge.amselem@inserm.fr		To support in priority, in the frame of the Network Brazil-France "stem cells and Rare Diseases"
INSERM U960	Illkirch-Strasbourg	Jocelyn Laporte	We study rare and severe neuromuscular disorders caused by mutations in proteins affecting organelle biogenesis, trafficking and function. Our main goal is to understand the pathophysiology of these proteins in cells and animal models, and the use of viral vectors for pathophysiology studies and preclinical therapeutic trials. In parallel, we study the function of these proteins in skeletal muscle under normal and pathological conditions through the development of novel imaging methods.	[1] Al-Qasimi and Laporte. T-tubule biogenesis and triad formation in skeletal muscle and implication in human diseases. <i>Skelet Muscle</i> . 2011 Jul;1(1):26-32. [2] Nicot and Laporte. Endosomal phosphoinositides and human diseases. <i>Traffic</i> . 2008 Aug;9(8):1240-9. [3] Fugier et al. Misregulated alternative splicing of BIN1 is associated with T-tubule alterations and muscle weakness in myotonic dystrophy. <i>Nat Med</i> . 2011 Jun;17(6):720-5; 41 Cowling et al. Increased expression of wild-type or a centronuclear myopathy mutant of dynamin 2 in skeletal muscle of adult wild-type mice leads to structural defects and muscle weakness. <i>Am J Pathol</i> . 2011 May;178(5):1224-35; 5) Toussaint et al. Defects in Amylophosphatase 2 (BIN1) and triads in several forms of centronuclear myopathies. <i>Acta Neuropathol</i> . 2011 Feb;121(2):253-266; 6) Hnia et al. Myotubular controls desmin intermediate filament architecture and mitochondrial dynamics in human and mouse skeletal muscle. <i>J Clin Invest</i> . 2011 Jan;121(1):70-85; 7) Spiegelberg et al. From dynamic live cell imaging to 3D ultrastructure: integrated methods for high pressure freezing and correlative light-electron microscopy. <i>Plus One</i> . 2010 Feb;5(2):e9014; 8) Nicot et al. Mutations in amylophosphatase 2 (BIN1) disrupt interaction with dynamin 2 and cause autosomal recessive centronuclear myopathy. <i>Nat Genet</i> . 2007 Sep;39(9):1134-9.	Genetic basis of neuromuscular diseases, and Regulation of membrane and organelle trafficking in skeletal muscle under healthy and pathological conditions	1 bioinformatician	1 cell biologist	jocelyn@ighm.fr	http://www.ighm.fr/jlaporte	To support in priority, in the frame of the Network Brazil-France "stem cells and Rare Diseases"
IGBMC - U964	ILLKIRCH	Daniel Metzger	Characterisation of the physiological and pathophysiological function of nuclear receptors in mouse skeletal muscles. Identification of new targets to fight myopathies and metabolic diseases	M. Schuler, F. Ali, C. Champon, D. Dutelle, J-M Bonert, A. Tardivel, B. Desvergne, W. Wahli, P. Champon and D. Metzger (2006) PGClα expression is controlled in skeletal muscles by PPARβ, whose ablation results in fiber type switching and type 2 diabetes. <i>Cell Metabolism</i> 4, 407-414. C. Champon, D. Metzger, A. Vignaud, A. Ferry, N. Messadeg, R. Malivindi, S. Kato, P. Champon & D. Metzger (2010) Myocytic androgen receptor controls the strength, but not the mass of limb muscles. <i>Proc. Natl. Acad. Sci. U.S.A.</i> 107 : 14327 - 14332. D. Dutelle, C. Champon, F. Ali, J. Zoll, R. Malivindi, B. Geny, P. Champon and D. Metzger (2010) The transcriptional co-regulator TIF2 regulates energy homeostasis by controlling mitochondrial respiration in skeletal muscles. <i>Cell Metabolism</i> , 12 : 496-508. Masiero E, Agata L, Mamuccari C, Blaauw B, Loro E, Komatsu M, Metzger D, Reggiani C, Schiaffino S, Sandri M. (2009) Autophagy is required to maintain muscle mass. <i>Cell Metabolism</i> , 10 : 507-515. M. Surjit, P. Priya Ganti, A. Mukherji, T. Ye, G. Hua, D. Metzger, M. Li, and P. Champon (2011). Widespread negative response elements mediate direct transpression by agonist-ligated glucocorticoid receptor. <i>Cell</i> , 145 : 224-231.	Characterisation of androgen and glucocorticoid signalling in mouse skeletal muscles	1 Molecular biologist with expertise in mouse physiology or bioinformatics	1 Molecular biologist with expertise in mouse physiology or bioinformatics	metzger@igbmc.u-strasbg.fr metzger@igbmc.fr		
INSERM U964	ILLKIRCH	Nicolas CHARLET-BERGERAND	We are studying how expanded non-coding RNA repeats cause RNA gain-of-function diseases (Myotonic Dystrophy, Centromeric Atrophy 10, Fragile X-associated Tremor Ataxia syndrome). These expansions are often disease causing but are not exported, and accumulate in pathogenic nuclear RNA aggregates that sequester specific RNA-binding proteins, leading to molecular changes ultimately resulting in the pathological symptoms. Our goal is to elucidate the molecular causes of these diseases and to identify drugs able to restore a normal function in patient models.	Fugier C, Jahn A, Hammer C, Vasiliopoulos S, Ivarsson Y, Toussaint A, Tosch P, Vignalaud A, Ferry A, Messadeg N, Kokunai Y, Tsukubara Y, de la Grange P, Dembele D, Francois P, Precigout E, Boulade-Ladame C, Hammel MC, Lopez de Matos M, Xerri N, Ivarsson Y, Ivarsson A, Thibault D, Garcia L, Zimmerman P, Udd B, Schoser B, Takahashi M, Nishino H, Bäckström T, Laporte J, Furling D, Charlet-B N. Triad formation of the alternative splicing of BIN1 is associated with T-tubule alterations and muscle weakness in Myotonic Dystrophy. <i>Nature Medicine</i> . 2011, 17(6):720-5. Rau F, Freymerath F, Fugier C, Vilmenco JP, Josz D, Dembele D, Gourdon G, Nicole A, Duboc D, Wahbi K, Day JW, Fujimura H, Takahashi MP, Auboeuf D, Dreumont N, Furling D, Charlet-B N. Triad formation of miR-1 processing is associated with heart defects in Myotonic Dystrophy. <i>Nature Structural and Molecular Biology</i> . 2011, 18(10):1038-43. Sobrier L, Rau F, ... , Tardif JJ, ... , Huguenot P, ... , Charlet-B N. Triad formation of miR-1 processing is associated with heart defects in Myotonic Dystrophy. <i>EMBO J</i> . 2010;29(7):1248-61.	To study the molecular and cellular causes of human genetic diseases due to long non-coding RNA (lncRNAs) due to expanded CGG repeats. Myotonic Dystrophies due to CTG expanded repeats; ALS-FTTD due to expanded CCGGGG repeats.	1 Molecular biologist, Cell biology	1 Molecular biologist, Cell biology, Mouse	ncharlet@igbmc.u-strasbg.fr		Important to support
INSERM U964	Illkirch (CU Strasbourg)	Cécile Rochette-Egly	Cross talk between Retinoic acid and Signaling pathways: molecular mechanism and deregulation in cancers	Samani E, Rochette-Egly C (2011) Nuclear Retinoic Acid Receptor: Conductors of the Retinoic Acid Symphony during development. Molecular and cellular endocrinology Apr 8. [Epub ahead of print]. Samani E, Anno M, Chastang A, Samanta E, Poch O, Lauden V, Benoit G, Lecompte P, Rochette-Egly C (2011) Genome-wide in Silico Identification of New Conserved and Functional Retinoic Acid Receptor Response Elements [Direct Re						

INSERM U964	Illkirch	Michel Labouesse	Forces and signals in tissue morphogenesis	1) Zhang H, Landmann F, Zahreddine H, Rodriguez D, Koch M, Labouesse M (2011) A tension-induced mechanotransduction pathway promotes epithelial morphogenesis. <i>Nature</i> , 471: 99-103. 2) Gally C, Wader F, Zahreddine H, Quintin S, Landmann F, Labouesse M (2009) Myosin II regulation during <i>C. elegans</i> embryonic elongation: LET-502/ROCK, MRCK-1 and PAK-1, three kinases with different roles. <i>Development</i> 136(10): 2109-2119. 3) Zahreddine H*, Zhang H*, Diogn M, Nagamatsu Y, Labouesse M (2010) CRT-1/calreticulin and the E3 ligase EEL-1/HUWE1 control hemidesmosome maturation in <i>C. elegans</i> development. <i>Curr Biol</i> 20(4): 322-327. 4) Labouesse M (2011) Forces and Tension in Development. <i>Curr Top Dev Biol</i> vol. 95. 5) Zhang H, Gally C, Labouesse M (2010) Tissue morphogenesis: how multiple cells cooperate to generate a tissue. <i>Curr Opin Cell Biol</i> 22(5): 575-582.	Cellular, genetic and mechanical analysis of the forces involved in generating organ shape. Experiments will involve biophysical approaches	1 cell biologist/ biophysicist	cell biologist and 3 developmental biologist <a href="mailto:michel@igbmc.fr">michel@igbmc.fr</a>			
UMR 7104/U 964	Illkirch- Graffenstain	Romeo Ricci	My laboratory addresses signal transduction pathways underlying different cellular path	1. Sumara, G., Formentini, I., Collins, S., Sumara, I., Musialek, R., Ramacharya, R., Caille, D., Jiang, H., Platt, K.A., Meda, P., Rorsman, P. and Ricci, R. Regulation of PKD by the MAPK p38delta in insulin secretion and glucose homeostasis. <i>Cell</i> 23; 136(2): 235-48. 2. Stepanek, E.M., Ricci, R.M., Eferl, R.R., Sumara, I., Sumara, I., Rath, M., Hui, L., and Wagner, E.F. (2006). c-Jun/AP-1 controls liver regeneration by repressing p53/p21 and p38 MAPK activity. <i>Genes Dev</i> 20, 2306-2314. #equal contribution 3. Yoshimura, K., Aoki, H., Ikeda, Y., Fuji, K., Akiyama, N., Furutani, A., Hoshii, Y., Tanaka, N., Ricci, R., Ishihara, T., et al. (2005). Regression of abdominal aortic aneurysm by inhibition of c-Jun N-terminal kinase. <i>Nat Med</i> 11, 1330-1338. 4. Ricci, R., Eriksson, U., Oudit, G.Y., Eferl, R., Akhmedov, A., Sumara, I., Sumara, G., Kasirir, Z., David, J.P., Bakir, L., et al. (2005). Distinct functions of junB in cardiac hypertrophy and heart failure. <i>Genes Dev</i> 19, 208-213. 5. Ricci, R., Sumara, G., Sumara, I., Rozenberg, I., Kurrer, M., Akhmedov, A., Hersberger, M., Eriksson, U., Eberl, F.R., Becher, B., et al. (2004). Requirement of JNK2 for scavenger receptor A-mediated foam cell formation in atherosclerosis. <i>Science</i> 306, 1558-1561.	Uncovering ubiquitylation pathways in liver metabolism by systems proteomic approach.	1 Helena de Fatima Magliarelli II	biochemist, physiologist	Romeo.RICCI@igbmc.fr		
INSERM U964	Illkirch	Bertrand Séraphin	Analysis og gene regulation through RNA decay/RNA Quality Control mechanisms/Protein complex characterization	Andersen CB, Ballut L, Johansen JS, Chamiel H, Nielsen KH, Oliveira CL, Pedersen JS, Seraphin B, Le Hir H, Andersen GR (2006) <i>Science</i> 313(5795): 1968-1972 Cugola N, Babajko S, Seraphin B (2004) <i>J Cell Biol</i> 165(1): 31-40 Dziembowski A, Lorentzen E, Conti E, Seraphin B (2007) <i>Nat Struct Mol Biol</i> 14(1): 15-22 Gavin AC, et al. (2002) <i>Nature</i> 415(6868): 141-147 - Lebreton A, Tomecki R, Dziembowski A, Seraphin B (2008). <i>Nature</i> 456(7224): 993-996 - Maussion F, Faux C, Seraphin B (2008) <i>EMBO J</i> 27(7): 1039-1048 - Puig O, Caspary F, Rigaut G, Rutz B, Bouveret E, Bragado-Nilsson E, Wilim M, Seraphin B (2001) <i>Methods</i> 24(3): 218-229 - van den Elzen AM, Henrij J, Lazar N, Gas ME, Durand D, Lacroute F, Niclaise M, van Tilburgh H, Seraphin B, Graillie M (2010). <i>Nat Struct Mol Biol</i> 17(12): 1446-1452 - Wyers F, Rougemalrie M, Badis G, Rousselle JC, Dufour ME, Boulay D, Devaux P, Namane A, Seraphin B, Libri D, Jacquier A (2005) <i>Cell</i> 121(5): 725-737	Analysis of the role of RNA decay factor in cancer	2 molecular biology, genetics, cell biology	3 molecular biology, molecular medicine	<a href="mailto:bertrand.seraphin@igbmc.fr">bertrand.seraphin@igbmc.fr</a>		
INSERM U964	Strasbourg	Julien Vermot	The focus of the lab is to address the cellular mechanodetection involved in response to biological flows during embryogenesis using genetics advanced light imaging, mathematical modeling and electron microscopy.	When multiphoton microscopy sees near infrared Mojzisova H, Vermot J. <i>Curr Opin Genet Dev</i> . 2011 Apr; 21(2):156-9. Modeling of flow sensing in zebrafish. <i>Dev Biol</i> . 2011 Oct; 353(1):11-5. Vermot J, Winkel M. Development. 2011 Oct;138(10):2411-5. From cilia hydrodynamics to re-build embryonic development. Supatto W, Vermot J. <i>Curr Top Dev Biol</i> . 2011;95:33-66. Review. Mechanistic basis of otolith formation during teleost inner ear development. Wu D, Freund JB, Fraser SE, Vermot J. <i>Dev Cell</i> . 2011 Feb; 15(2)(2):271-8. Reversing blood flows act through kif2a to ensure normal valvulogenesis in the developing heart. Vermot J, Forouhar AS, Liebling M, Wu D, Plummer D, Gharib M, Fraser SE. PLoS One. 2009 Jun 10;4(6):e58333. Epub 2009 Jun 10. The dynein regulatory complex is required for ciliary motility and otolith biogenesis in the inner ear. Vermot J, Colantonio JR, Wu D, Langenbacher AD, Fraser S, Chen JN, Hill KL. Nature. 2009 Jan 8;457(7226):205-9. Epub 2008 Nov 30. An all-optical approach for probing microscopic flows in living embryos. Supatto W, Fraser SE, Vermot J. <i>Biophys J</i> . 2008 Aug;95(4):L29-31. Epub 2008 Jun 13.	The aim of the project will be to characterize mechanotransduction pathways involved in the vascular development using zebrafish as a model organism. The project is centered around the use of advanced imaging, zebrafish genetics and biophysics techniques. basic knowledge in modeling will be helpful.	2 molecular biology	2 biology/biophysics	<a href="mailto:julien.vermot@igbmc.fr">julien.vermot@igbmc.fr</a>		
U964 (UMR7104)	Strasbourg / Illkirch	Pascal Dolle	Using mice models we investigate role of retinoid receptor signalling pathways in development and functions of central nervous system. To validate relevance of such findings for neuropsychiatric disorders we use animal models of CNS disorders and if relevant also clinical approaches	1) Wiederrecht-Schindler et al., <i>Biol Psych</i> . 2011 Apr 15;69(8):788-94. 2) Zhou et al., <i>Proc Natl Acad Sci U S A</i> . 2011 Oct 4;108(40):16687-92. 3) Kryzysik et al., <i>Neuron</i> . 2010 Jun 24;66(6):909-20. 4) Ribes et al., <i>Development</i> . 2009 Feb;136(4):665-78. 5) Niederreither and Dolle, <i>Nat Rev Genet</i> . 2008 Jul;9(7):541-53. 6) Wiederrecht et al., <i>Learn Mem</i> . 2005 May-Jun;12(3):318-26. 7) Vermot et al., <i>Science</i> . 2005 Apr 22;308(5721):563-6. 8) Kreitz et al., <i>Proc Natl Acad Sci U S A</i> . 2001 Oct 9;98(21):12278-82. 9) Kreitz et al., <i>Science</i> . 1998 Feb 6;279(5352):863-7.	1) study of the role of retinoid signalling in etiology and physiopathology of stress related disorders; 2) role of retinoid signalling in development and functions of dopaminergic signalling	one background in neuroscience with some training in electrophysiol ogy on acute slices, OR 2) two rodent behavior and steroidics injections and/or stimulations, OR 3)	Welcome would be post-doc with background in neuroscience with some training in electrophysiol ogy on acute slices, OR 2) rodent behavior and steroidics injections and/or stimulations, OR 3) molecular or	background in some training in electrophysiol ogy on acute slices, OR 2) rodent behavior and steroidics injections and/or stimulations, OR 3) molecular or	<a href="mailto:pascal.dolle@igbmc.fr">pascal.dolle@igbmc.fr</a>	
UMR7104	Strasbourg	Norbert Ghyselinck	The seminiferous epithelium of the testis represents the most remarkable paradigm to investigate the pleiotropic effects of retinoic acid in vivo, as it integrates the problematic of stem cell renewal, cell proliferation, switching from meiosis to mitotic cell division, programmed cell death and paracrine signaling. Using a combination of innovative genetic, pharmacological and molecular approaches in the mouse, we are studying the cellular and molecular mechanisms that underlie the capabilities of retinoic acid to promote spermatogonia differentiation and beyond the differentiation of normal stem cells in vivo.	Mascrez B, Ghyselinck NB, Champon P, Mark M. A transcriptionally silent RXR $\alpha$ supports early embryonic morphogenesis and heart development. <i>Proc. Natl. Acad. Sci. USA</i> . 106:4272-4277. (2009). Mark M, Jacobs H, Oulad-Abdelghani M, Dennefeld C, Feret B, Vernet N, Codreanu CA, Champon B, Ghyselinck NB. STRAB-deficient spermatocytes initiate, but fail to complete, meiosis and undergo premature chromosome condensation. <i>J. Cell Sci.</i> 121:3233-3242. (2008). Vernet N, Dennefeld C, Guillou F, Champon B, Ghyselinck NB, Mark M. Pubertal testis development relies on retinoic acid but not retinoid receptors in Sertoli cells. <i>EMBO J.</i> 25:5816-5825. (2006). Mark M, Ghyselinck NB, Champon P. Function of retinoid nuclear receptors: lessons from genetic and pharmacological dissections of the retinoic acid signaling pathway during mouse embryogenesis. <i>Annu. Rev. Pharmacol. Toxicol.</i> 46:451-480. (2006).	Stem cells	1 cell biologist	1 cell biologist	<a href="mailto:norbert@igbmc.u-strasbg.fr">norbert@igbmc.u-strasbg.fr</a>		
IGBMC: INSERM U964, CNRS UMR7104, U965	Illkirch CU STRASB RG	Sophie JARRIAULT	Our group is interested in deciphering the cellular and molecular mechanisms that underlie the ability of a differentiated cell to change its identity. This cellular plasticity, called direct reprogramming or transdifferentiation, has important implications ranging from regenerative medicine to cancer. We have established a new powerful <i>in vivo</i> model that allows the detailed analysis of the molecular networks involved at single cell level.	• Hajduczka M., Daniele T., Ahier A. & Jarrault S. Cellular plasticity in <i>Caenorhabditis elegans</i> : from induced to natural reprogramming. Invited review. <i>Genesis</i> , in press. ** Cover of the issue ** • Richard J., Zurny S., Fischer N., Pavet V., Vaucamp N. and Jarrault S. (2011) Direct <i>in vivo</i> reprogramming involves transition through discrete, non-pluripotent steps, <i>Development</i> 138(8): 1483-92. Epub March 9, 2011. ** Cited + Recommended + by Faculty 1000 ** - Highlight in the "Focus" page of the issue. • Zurny S., Le Gras S., Janet K. and Jarrault S. (2010) Deep Mapping: A strategy for direct mapping and identification of mutations by whole-genome sequencing. <i>Genetics</i> 186(1):427-30. Epub 2010 Jul 6. ** Cover of the issue **. • Jarrault S. (2009) LIN-12/Notch signaling: Induction, lateral specification and interaction with the EGFR/Ras pathway. <i>Handbook of Cell Signaling</i> 2nd Edition (Eds. R.A. Bradshaw and E.A. Dennis), Oxford: Academic Press, pp. 1891-1896. • Jarrault S., Schwab Y. & Greenland I. (2008) A <i>C. elegans</i> model for epithelial-neuronal transdifferentiation. <i>PNAS</i> 105(10) : 3790-5. ** March 5th 2008 - Cited + Must Read + and ranked in the Top 10 Developmental Biology Papers + by Faculty 1000.**	We have launched successful genetic screens and have identified key factors involved in the <i>in vivo</i> direct reprogramming of a differentiated cell. We propose to elucidate how these factors cooperate in the nucleus with other factors to induce the transition, in a physiological setting. We anticipate that our results will be key for the assessment of potential risks in using direct reprogramming strategies for regenerative medicine purposes, as well as for the implementation of efficient procedures.	Current: 2 Genetic major; 1 To be recruited	3: (1 Genetic major; 1 To be recruited and finishing up) 1 Genetic major; 1 To be recruited and experienced obtained a Master in Science degree; Having experience in the field of science	The applicant will have an excellent track record in Biology, preferably in Developmental Biology and/or Genetic. The successful candidate should be highly motivated and experienced in the use of molecular biology and genetic techniques. A preliminary practical experience using C. elegans is desirable.	<a href="mailto:sophie.jarrault@igbmc.fr">sophie.jarrault@igbmc.fr</a> <a href="http://igbmc.fr/jarrault/">http://igbmc.fr/jarrault/</a>	
UMR7104	Paris	Gisèle Bonne	Genetics and Phatophysiology of Neuromuscular Disorders	1- Arimura et al., <i>Hum Mol Genet</i> , 2005, 14:155-169. 2- Bitton et al., <i>Nat Genet</i> , 2005, 37:1207-1209. 3- Bonne et al., <i>Nat Genet</i> , 1999, 21:285-288. 4- Brinkmann et al., <i>Neurology</i> , 2005, 65(1):1-20. 5- Dennerlein et al., <i>Hum Mol Genet</i> , 2011, 20(14):4820-4836. 6- Grange et al., <i>Hum Genetic</i> , 2011, 129(2):149-59. 7- Guenneau et al., <i>Am J Hum Genet</i> , 2009, 85:338-353. 8- Schüssler et al., <i>Nat Clin Pract Cardiovsc Med</i> , 2008, 6:240-249.	- Genetics, Pathophysiology a Therapeutic approach of striated muscle Laminopathies & related disorders, - Genetics, Pathophysiology a Therapeutic approach of Collagen-6 related myopathies - Genetics, Pathophysiology a Therapeutic approach of centronuclear myopathies - Pathophysiology of contractile dysfunction & mechanotransduction using 3D culture systems.	2 molecular genetics, cell biology, molecular biology,	2 molecular genetics, cell biology, molecular biology, muscle physiology	<a href="http://www.institut-myopologie.org">http://www.institut-myopologie.org</a>		
UMR7104 Inserm U974 CNRS - AIM	Paris	Daniel Vaiman	Genomics and Epigenetics of human reproductive diseases details at <a href="http://cochin.inserm.fr/fa_recherche/departements/gd/equipe-vaiman">http://cochin.inserm.fr/fa_recherche/departements/gd/equipe-vaiman</a>	1.Vaiman, D., Gascon-Lachambre, G., Bourboul, F., Mandon, F., Feuerstein, J.M., Ligi, I., Grandvallemain, I., Barbaux, S., Ghigo, E., Achard, V., et al. 2011. The intensity of IUGR-Induced Transcriptome Deregulations Is Inversely Correlated with the Onset of Organ Function in a Rat Model. <i>PLoS ONE</i> 6:e21222. 2.Cheibi, S.T., Doridot, L., Mondon, F., Dussou, C., Rebourcet, R., Busato, F., Gascon-Lachambre, G., Barbaux, S., Rigourd, V., Mignot, T.M., Legras, E., Simoni, E., Vaiman, D., et al. 2010. Collins in human intra-uterine growth restriction: expressionnal and epigenetic alterations. <i>Placenta</i> 31:151-157. 3.Fauque, P., Mondon, F., Cheibi, S.T., Jourdin, L., Baly, F., Busato, F., Le Digarcher, A., Mondon, F., Guillet, J., Jourdan, L., et al. 2010. Modulation of imprinted gene network in placenta results in normal development of in vitro manipulated mouse embryos. <i>Mol Cell Genet</i> 19:1779-1798. 4.Jourdan, L., Guillet, J., Jourdin, L., Baly, F., Busato, F., Le Digarcher, A., Mondon, F., Guillet, J., Jourdan, L., et al. 2010. In vitro fertilization and embryo culture strongly impact the placental transcriptome in the mouse model. <i>PLoS ONE</i> 5:e9218. 5.Jourdan, L., Camoin, L., Guillonneau, F., Ripoche, M.A., Jourdan, L., Barbaux, S., Dandolo, L., Patrat, C., Wolf, J.P., Jourdan, L., et al. 2010. In vitro fertilization and embryo culture reveal the placental transcriptome in the mouse model. <i>PLoS ONE</i> 7:1094-1017. 7.Rigourd, V., Cheibi, S.T., Jourdan, L., Rebourcet, R., Barbaux, S., Bessières, B., Mondon, F., Mignot, T.M., Danan, J.L., and Vaiman, D. 2009. Re-evaluation of the role of STOX1 transcription factor in placental development and preeclampsia. <i>J Reprod Immunol</i> . 8.Rigourd, V., Cheibi, S.T., Rebourcet, R., Mondon, F., Le Digarcher, A., Busato, F., Jourdan, L., et al. 2008. STOX1 overexpression in choriocarcinoma cells mimics transcriptional alterations observed in preeclampsia placenta. <i>PLoS ONE</i> 3:e3906. 9.Cheibi, S.T., and Vaiman, D. 2008. Genetic and epigenetic factors contribute to the onset of preeclampsia. <i>Mol Cell Endocrinol</i> 282:120-129. 10.Fauque, P., Jourdan, L., Lesaffre, C., Ripoche, M.A., Dandolo, L., Vaiman, D., and Jammes, H. 2007. Assisted Reproductive Technology affects developmental kinetics, H19 Imprinting Control Region methylation and H19 gene expression in individual mouse embryos. <i>BMC Dev Biol</i> 7:116.	Genetics of preeclampsia and fetal growth restriction	1 Cell and Molecular Biology	<a href="mailto:daniel.vaiman@inserm.fr">daniel.vaiman@inserm.fr</a>		To support in priority, in the frame of the Network Brazil-France "stem cells and Rare Diseases"	
INSERM U916	Paris	Pascal Maire	Our team, "Genetics and Development of Skeletal Muscles", explores the functions of transcription factors (Six, SRF, Gli) and signaling pathways (Wnt, Hh, BMP) active during development, muscle regeneration, atrophy/hypertrophy, and in rhabdomyosarcomas.	1 Rouault H, Mazouni K, Courtier L, Hakim V, Schweigert F (2010) Genome-wide identification of cis-regulatory motifs and modules underlying gene coregulation using statistics and phylogeny. <i>Proceedings of the National Academy of Sciences of the United States of America</i> 107: 14615-14620. 2 Chakalakal JV, Harrison MA, Carbonetto S, Chin E, Michel RN, et al. (2004) Stimulation of calcineurin signaling attenuates the dystrophic pathology in mdx mice. <i>Human molecular genetics</i> 13: 379-388. 3 Acharya S, Butow ME, Li Z, Wang H, Saji M, et al. (2005) Dystrophin glycoprotein complex: a regulatory link between skeletal dystrophy and cancer cachexia. <i>Cancer cell</i> 8: 421-432. 4 Cao J, Jones AF, Conroy D, Sherr J, Rand TA (2008) A temporal switch from notch to Wnt signaling in muscle stem cells is necessary for normal adult myogenesis. <i>Cell stem cell</i> 2: 50-59. 5 Le Grand J, Rocancourt D, Mansouri A, Buckingham M (2005) A Pax3/Pax7-dependent population of skeletal muscle progenitors have distinct genetic requirements. <i>Nature</i> 435: 948-951. 6 Le Grand J, Rocancourt D, Mansouri A, Buckingham M (2009) Adult satellite cell polarity pathway to drive the symmetric expansion of satellite stem cells. <i>Cell stem cell</i> 4: 535-547. 7 Relais C, Conway S, Fan C (2009) Adult satellite cell polarity pathway to drive the symmetric expansion of satellite stem cells. <i>Cell stem cell</i> 4: 535-547. 8 Leppert C, Conway S, Fan C (2009) Adult satellite cell polarity pathway to drive the symmetric expansion of satellite stem cells. <i>Cell stem cell</i> 4: 535-547. 9 Griffin R, Demignie J, Houbron C, Souli E, Niro C, et al. (2005) Six1 and Six4 homeoproteins are required for Pax3 and MRF expression during myogenesis in the mouse embryo. <i>Development</i> 132: 2235-2249. 10 Giordani J, Bajaj, D., Demignie J, Dauwas B, Buckingham M, et al. (2007) Six proteins regulate the activation of Myf5 expression in embryonic mouse limbs. <i>Proc Natl Acad Sci U S A</i> 104: 11310-11315.	1- Involvement of Six homeoproteins and their cofactors in adult myogenic stem cells homeostasis. 2- Involvement of SRF during adult muscle regeneration and hypertrophy.	1 Biologist interested by myogenic stem cells, able to work with mice. Experience with immunocytochem istry and imaging, and				

U1024	PARIS	Nathalie SPASSKY	We are studying the mechanisms regulating the biology of neural stem cells by using the mouse brain as a model.	1-Spassky et al., 2005, <i>J Neurosci</i> 25(1):10-18; 2- Sawamoto et al., 2006, <i>Science</i> , 311(5761):629-32; 3- Spassky et al., 2008, <i>Dev Biol</i> , 317(1):246-59; 4- Han et al., 2008, <i>Nat Neuro</i> , 11(3):277-84; 5- Guiroa et al., 2010, <i>Nat Cell Biol</i> , 12(4):341-50.	Cell Biology, Developmental neurobiology	1	Cell Biologist	2	Cell Biologist, Neurobiologist	<a href="mailto:spassky@biologie.ens.fr">spassky@biologie.ens.fr</a>		
INSERM U1024 CNRS UMR8197	Paris	Vincent COLOT	Plant Epigenetics and Epigenomics. Transgenerational inheritance of epigenetic variation. RNA-directed DNA methylation. RNA interference.	- Ahmed I, Sarazin A, Bowler C, Colot V, Quesneville H. Genome-wide evidence for local DNA methylation spreading from small RNA-targeted sequences in <i>Arabidopsis</i> . <i>Nucleic Acids Res</i> . 2011 Sep 1;39(16):6919-31. - Roudier F, Ahmed I, Béroud C, Sarazin A, Mary-Huard T, Cortijo S, Bouyer D, Callieux E, Duvernois-Berthet E, Al-Shikhley L, Giraut L, Després B, Drevessen S, Barreche F, Derozier S, Bruunvad V, Aubourg S, Schnittger A, Bowler C, Mary-Huard M, Robins K, Caboche M, Colot V. Integrative epigenomic mapping defines four main chromatin states in <i>Arabidopsis</i> . <i>EMBO J</i> . 2011 May 18;30(10):1928-38. - Bouyer D, Roudier F, Heesse M, Andersen ED, Grey D, Novack MK, Goodrich J, Renou JP, Grata PE, Colot V, Schnittger A. Polycomb repressive complex 2 controls the embryo-to-seeding phase transition. <i>PLoS Genet</i> . 2011 Mar;7(3):e1002014. - Teixeira FK, Colot V. Repeat elements and the <i>Arabidopsis</i> DNA methylation landscape. <i>Heredity</i> . 2010 Jul;105(1):14-23. - Roudier F, Teixeira FK, Colot V. Chromatin indexing in <i>Arabidopsis</i> : an epigenomic tale of tails and more. <i>Trends Genet</i> . 2009 Nov;25(11):511-7. - Johannes F, Porcher T, Teixeira FK, Colot V, Simon M, Agier N, Bulski A, Albison J, Heredia F, Audiger P, Bouchet D, Dillmann C, Guerche P, Hospital F, Colot V. Assessing the impact of transgenerational epigenetic variation on plant traits. <i>PLoS One</i> . 2009 Jun;4(6):e53638. - Teixeira FK, Colot V. Gene body DNA methylation in plants: a means to an end or an end to a means? <i>EMBO J</i> . 2009 Apr 22;28(8):997-8. PubMed PMID: 19384248; PubMed Central PMCID: PMC2682714. 13. Teixeira FK, Heredia F, Sarazin A, Roudier F, Boccardi C, Crustad C, Berdasco M, Fraga MF, Voinnet O, Wincker P, Esteller M, Colot V. A role for RNAi in the selective correction of DNA methylation defects. <i>Science</i> . 2009 Mar 20;323(5921):1600-4. - Johannes F, Colot V, Janzen RC. Epigenome dynamics: a quantitative genetics perspective. <i>Nat Rev Genet</i> . 2008 Nov;9(11):883-90. PubMed PMID: 18927581. - Turck F, Béroud C, Ferraris S, Martin-Magniette ML, Guillaume E, Buisne N, Gagnon S, Martienssen RA, Coupland G, Colot V. <i>Arabidopsis</i> TFL2/HPI specifically associates with genes marked by trimethylation of histone H3 lysine 27. <i>PLoS Genet</i> . 2009 Jun;5(6):e1005266. - Uppman Z, Gendrel AV, Varga V, Martienssen R. Profiling DNA methylation patterns using genomic tiling microarrays. <i>Nat Methods</i> . 2005 Mar;2(3):219-24. PubMed PMID: 16163803. - Gendrel AV, Uppman Z, Martienssen R, Colot V. Profiling histone modification patterns in plants using genomic tiling microarrays. <i>Nat Methods</i> . 2005 Mar;2(3):213-8. PubMed PMID: 16163802.	Genomic, genetic and phenotypic consequences of epigenetic variation		1 molecular geneticist, 1 bioinformatician		<a href="http://www.jepm.ens.fr">http://www.jepm.ens.fr</a> <a href="http://jepm.ens.fr/jepm001/article87">jepm.ens.fr/jepm001/article87</a>			
U1091 (U636)	Nice	Minoo Rassoulzadegan	Our laboratory established the first mouse models of an epigenetic heredity distinct from the Mendelian rules. Small noncoding (snc) RNA molecules with sequence homology to the transcript were shown to act as transgenerational signals leading to the establishment of the modified phenotypes. We are also exploring the possibility of RNA-signalling and transgenerational maintenance of other phenotypes including comportamental variations for which evidence of paternal inheritance has been established.	Rassoulzadegan, M. et al., <i>Nature</i> 441, 469-474 (2006). Wagner, K. B. et al., <i>Dev Cell</i> 14, 962-969 (2008). Grandjean, V. et al., <i>Development</i> 136, 3647-3655 (2009). Cuzin F, Rassoulzadegan M. <i>Essays Biochem</i> . 2010 Sep 20;48(1):101-6. Rassoulzadegan M, Cuzin F. <i>Oncogenesis</i> . 2010 Jan;6(1):33-6.	Epigenetic heredity	2	Geneticist, developmental Biology	2	Molecular Biology, mammalian Genetic and embryology	<a href="mailto:minoo@unice.fr">minoo@unice.fr</a>		
U1091 (U636)	Nice	Andreas Schedl	Kidneys and adrenal glands have central roles in controlling the cardiovascular system and the homeostasis of the human body. Our research team is trying to unravel the molecular mechanisms underlying normal development, identify the genetic factors involved in congenital disease and elucidate mechanisms that contribute to organ maintenance (stem cell activation) and the development of cancer within these organs.	Regnensi et al., (2011) <i>Hum. Mol. Genet</i> 20:1143-53. Bradford ST, et al., (2009) <i>Hum. Mol. Genet</i> . 8:3429-38. Schedl A. (2007) <i>Nat Rev Genet</i> . 8:79-802. Parmentier et al (2008) <i>Hum. Mol. Genet</i> . 18:3094-3109. Parmentier et al (2008) <i>J. Biol</i> . 46:79-800. Wagner et al. (2005) <i>Genes &amp; Dev</i> . 19:2631-42. Vidal et al. (2005) <i>Curr. Biol</i> . 15:1340-51. Wagner et al. (2005) <i>Development</i> 132:1327-1336. Vidal et al. (2001) <i>Nature Genet</i> . 28: 216-7. Hammes et al. (2001) <i>Cell</i> 106: 319-329	Congenital diseases of the kidney Molecular analysis of renal development and disease Signaling pathways is organ maintenance and cancer	2	Geneticist, developmental biologist, molecular biologist	4	Geneticist, developmental biologist, molecular biologist, bioinformatician	<a href="mailto:schedl@unice.fr">schedl@unice.fr</a>		
U1091 (U636)	Nice	Marie-Christine Chaboissier	The incidence of disorders of sexual development (DSD) has increased in the last 50 years with, for example, the doubling of cases of cryptorchidism and an increase in testicular cancer, the most common cancer in young men. Many cases of DSD and testicular cancers are caused by genetic defects during embryogenesis. In the laboratory, we work on the identification and the analysis of the mechanisms of action of genetic factors responsible for these pathologies.	Vidal VP*, Chaboissier MC* et al.(2001). <i>Nat Genet</i> 28, 216-217. Equal contribution. Chaboissier MC et al.(2004). <i>Development</i> 131, 1891-1901. FACULTY 1000 Parma P., et al.(2006). <i>Nat. Genet.</i> 38, 1304-09. FACULTY 1000 Chassot AA., et al.(2008). <i>Hum Mol Genet</i> 17, 1264-77. FACULTY 1000 Gregoire E., et al.(2011). <i>Dev. Biol.</i> 349 (1), 63-72. FACULTY 1000 Vidal et al. (2005) <i>Genes &amp; Dev</i> . 19:111-122. FACULTY 1000 Chassot AA., et al.(2011). <i>PLOS ONE</i> . In press Auguste A., et al.(2011). <i>Sex Dev</i> . In press	Genetics of disorders of sexual differentiation	1	Geneticist, Developmental Biologist	2	Geneticist, Developmental Biologist	<a href="mailto:chaboissier@unice.fr">chaboissier@unice.fr</a>		
U1091 (U636)	Nice	Michèle STUDER	Molecular mechanisms of brain development with particular emphasis on cortical cell specification and neural stem cells	Affoux et.. Al., <i>Development</i> , In press. Lodato et .., <i>J. of Neuroscience</i> 2011; 4650-4662 Lodato et .., <i>Neuron</i> , 2011; 69: 1-17 Tomasy Subrek et al. <i>PNAS</i> , 2010, 107(8): 3576-81. Faedo et al., <i>Cerebral Cortex</i> , 2008, 9, 2117-31. Armentano et al. <i>Nature Neuroscience</i> , 10, 2007, 1277-1286 (with cover) Armentano et al. <i>Development</i> , 2007; 134(18):4157-4162. Ferrante et al., <i>Nature Genetics</i> , 38, 2006, 1127-1. Coppioli et al., <i>EMBO Journal</i> , 24, 2005, 4392-403. Tripodi et al. <i>Development</i> 131, 2004, 6119-29.	Molecular Neurobiology	3	Neuroscience biologist, developmental biologist, neurobiologist	2	cell biologist, neurobiologist	<a href="mailto:Michèle.STUDER@unice.fr">Michèle.STUDER@unice.fr</a>		