7th Course on Epigenetics : March 9-16 2011 - Programme

Training Unit - International Course - Open conferences (in blue)

Wednesday March 9th		Chair : Geneviève Almouzni / Nathalie Dostatni	
08:45	Jacqueline Legras / Mélanie Herrbach (Institut Curie, Paris, France)	Welcome, practical aspects & student poster set-up	Amphithéâtre BDD 11-13, rue Pierre & Marie Curie 75005 Paris
	G. Almouzni, N. Dostatni (UMR 218, Institut Curie/CNRS, Paris, France)	Presentation of the module by the organizers & scientific committee	
09:00-10:30	Students presentation/ personal work	Short presentation of background and research interest (1 mn each)	
10:30	BREAK "BDD Hall"		
11:00-11:45	Andrew Moore (BioEssays, Weinheim, Germany)	Appealing to your readers: Popular media skills can improve your chances of publication and recognition	
12:00-12:45	Nathalie Dostatni (UMR 218, Institut Curie/CNRS Paris, France)	Position Effect Variegation in *Drosophila:* a paradigm for epigenetics	
13:00	LUNCH "BDD Hall"		
14:00-14:45	Denis Thieffry (ENS, Paris)	Logical modeling of cell fate decisions	
15:00-15:45	Amos Tanay (Weizmann Institute, Rehovot, Israel)	DNA methylation in evolution and carcinogenesis	
16:00	BREAK "BDD Hall"		
16:30-17:30	Azim Surani (The Gurdon Institute, Cambridge, UK)	Resetting the Epigenome in the mouse germ line	
17:45	"The Hidden Life of our Genes"		
19:00	Welcome reception, "Chez Marie"		12, rue Lhomond - 75005 Paris

Thursday March 10th	Chair : Patricia Le Baccon / Sophie Polo		
NUCLEAR ORGANIZATION			
9:30 - 9:50	**Patricia Le Baccon** (UMR 218, Institut Curie/CNRS Paris, France)	**Live cell imaging**	**Amphithéâtre BDD 11-13, rue Pierre & Marie Curie 75005 Paris**
9:50 - 10:15	**Sophie Polo** (UMR 218, Institut Curie/CNRS Paris, France)	**Chromatin and the DNA damage response**	
10:30	**Session mentored by Oliver Trüe**	**The deacetylase HDAC6 and the cellular stress response in a neurodegenerative disease model**	
10:40-10:55	**Article presentation by Tim Pollex**	Comparing video-rate STED nanoscopy and confocal microscopy of living neurons. 2010. J Biophotonics. 3:417. **Proposed by Patricia Le Baccon**	
10:55-11:10	**Article presentation by Marc Laurent**	DNA repair factor APLF is a histone chaperon. 2011. Molecular Cell. 41:46. **Proposed by Sophie Polo**	
11:10	**BREAK "BDD Hall"**		
11:40-12:25	**Leonie Ringrose** (IMBA, Vienna, Austria)	**Mathematical modeling in biology and epigenetics**	
12:40	**Article presentation by Rieka Stunnenberg**	Evidence for a common mode of transcription factor interaction with chromatin as revealed by improved quantitative fluorescence recovery after photobleaching. 2008. Biophysical Journal. 94:3323. **Proposed by Leonie Ringrose**	
13:00	**LUNCH "BDD Hall"**		
14:00-14:45	**Jérôme Déjardin** (IGH, Montpellier, France)	**Heterochromatic loci in mammals: from function to composition**	
15:00	**Session mentored by Charlène Lemaître**	**DNA damage response at the nuclear periphery**	
15:10-15:30	**Article presentation by Tanguy Lucas**	Systematic protein location mapping reveals five principal chromatin types in Drosophila cells. 2010. Cell. 143:212. **Proposed by Jérôme Déjardin**	
15:30	**BREAK "BDD Hall"**		
16:00-16:45	**Angela Taddei** (UMR 218, Institut Curie/CNRS Paris, France)	**Nuclear organization and transcription in budding yeast**	
17:00 - 17:20	**Article presentation by Jean Ollion**	Perinuclear lacalization of chromatin facilitates transcriptional silencing. 1998. Nature. 394:592. - Recruitment to the nuclear periphery can alter expression of genes in human cells. 2008. PLoS Genetics. 4:e1000039. **Proposed by Angela Taddei**	
17:30-19:30	**Paul Harrison** (Visual Research Centre, University of Dundee, Scotland, UK)	**Epigenetic Imagin(in)g**	

Friday March 11th	Chair : Valérie Borde / Deborah Bourc'his		
CHROMATIN IN THE GERMLINE & EARLY DEVELOPMENT			
09:30-10:15	**Valérie Borde** (UMR 218, Institut Curie/CNRS Paris, France)	**Chromatin dynamics during meiotic recombination**	**Amphithéâtre BDD 11-13, rue Pierre & Marie Curie 75005 Paris**
10:30	**Session mentored by Miriam Pusch**	**Proteomics of newly assembling chromatin**	
10:40-11:00	**Article presentation by Laetitia Kasprzyk**	Distinct histone modifications define initiation and repair of meiotic recombination in the mouse. 2009. EMBO J 28:2616 and PRDM9 Is a Major Determinant of Meiotic Recombination Hotspots in Humans and Mice. 2010. Science 327:836. **Proposed by Valérie Borde**	
11:00	**BREAK "BDD Hall"**		
11:30-12:15	**Saadi Khochbin** (Institut Albert Bonniot, Grenoble, France)	**Molecular basis of haploid genome reprogramming : from sporulation to mammalian spermatogenesis**	
12:30-12:50	**Article presentation by Ana Boskovic**	Distinctive chromatin in human sperm packages genes for embryo development. 2009. Nature. 460: 473. **Proposed by Saadi Khochbin**	
13:00	**LUNCH "BDD Hall"**		
14:00-14:45	**Deborah Bourc'his** (CNRS/UMR3215, INSERM U934 Institut Curie, Paris, France)	**Rise and fall of transposons in the mammalian germline**	
15:00	**Session mentored by Mathilde Etcheverry**	**Establishment of epigenetic control over newly inserted TEs in Arabidopsis**	
15:10-15:30	**Article presentation by Maoussi Lhuillier-Akakpo**	Somatic mosaicism in neuronal precursor cells mediated by L1 retrotransposition. 2005. Nature. 435:903. - L1 retrotransposition in neurons is modulated by MeCP2. 2010. Nature. 468:443. **Proposed by Deborah Bourc'his**	
15:30	**BREAK "BDD Hall"**		
16:00-16:45	**Maria-Elena Torres-Padilla** (IGBMC, Illkrich, France)	**Epigenetic mechanisms in early mammalian development**	
17:00-17:20	**Article presentation by Aleksandra Turp**	Induction of pluripotent stem cells from adult human fibroblasts by defined factors. 2007. Cell. 131:861 - Hotspots of aberrant epîgenomic reprogramming in human induced pluripotent stem cells. 2011. Nature. Feb. **Proposed by Maria-Elena Torres Padilla**	
17:30-18:00	**Bernd Pulverer** (EMBO Journal, Heidelberg, Germany)	**Publishing Epigenetics, a survival guide**	
18:15	**POSTER SESSION - DRINKS - ANIMATION BY Manolis Papamichos-Chronakis**		

Saturday March 12th : BRUNCH DEDICATED TO CAREER DEVELOPMENT			
10:00 - 13:00	BRUNCH DEDICATED TO CAREER DEVELOPMENT		
	Organized by PhD students/Post-Docs (UMR218, Institut Curie/CNRS, Paris)	President : Vérane Sommermeyer Members : Elsa Brachet, Dan Filipescu, Ivaylo Nikolov, Kelly Romeo	
	Invited participants :	. Bernd Pulverer : Head of Scientific publication, EMBO Journal, Heidelberg, Germany . Sylvie Salamitou : Member of Cenre de Vulgarisation de la Connaissance (CVC), Orsay . Romain Mitre : Teacher at ENCPB (Ecole Nationale de Chimie, Physique et Biologie), Paris, France . Christian Boulin : Director of Core facilities and Services & Senior Vice Scientist at EMBL, Heidelberg, Germany . Geneviève Almouzni : Unit leader, Institut Curie, Paris, France . Jonathan Moggs : Director & Head of Molecular Toxicology (Investigative Toxicology, Preclinical Safety, Translational Sciences), Novartis Institutes for Biomedical Research, Basel, Switzerland	

Free afternoon

Monday March 14th	Chair : Edith Heard / Raphaël Margueron		
EPIGENETIC PROCESSES & TRANSCRIPTIONAL LANDSCAPE			
09:30-10:15	**Edith Heard** (CNRS/UMR3215, INSERM U934 Institut Curie, Paris, France)	**X inactivation : a paradigm of monoallelic gene expression and epigenetic regulation in mammals**	**Amphithéâtre BDD 11-13, rue Pierre & Marie Curie 75005 Paris**
10:30	**Session mentored by Paulina Chilarska**	**Uncovering the roles of DNA methylation in maintaining pluripotency**	
10:40-11:00	**Article presentation by Michaël Lintorn Catlin**	High-resolution analysis of parent-of-origin allelic expression in the mouse brain. 2010. Science. 329:643 - Sex-specific parent-of-origin allelic expression in the mouse brain. Science. 329:682. **Proposed by Edith Heard**	
11:00	**BREAK "BDD Hall"**		
11:30-12:15	**Antonin Morillon** (UMR3244, Institut Curie, Paris, France)	**Non-coding regulatory RNA and epigenetic signaling in yeast**	
12:30-12:50	**Article presentation by Tuo Zhang**	Nascent transcript sequencing visualizes transcription at nucleotide resolution. 2011. Nature. 469:368. **Proposed by Antonin Morillon**	
13:00	**LUNCH "BDD Hall"**		
14:00-14:45	**Vincent Colot** (ENS, Paris, France)	**Mechanisms and consequences of DNA methylation in Arabidopsis**	
15:00-15:45	**Raphaël Margueron** (CNRS/UMR3215, INSERM U934 Institut Curie, Paris, France)	**Mechanism of repression by polycomb proteins**	
16:00	**BREAK "BDD Hall"**		
16:30	**Session mentored by Martijn Koppens**	**The role of PcG proteins in normal maintenance and tumor development of the intestine and prostate**	
16:40-17:00	**Article presentation by Angelika Feldmann**	Zygotic resetting of the histone 3 variant participates in epigenetic reprogramming in arabidopsis. 2010. Current biology. 20:2137. **Proposed by Vincent Colot**	
17:00-17:20	**Article presentation by Philip Yung**	Long noncoding RNA as modular scaffold of histone modification complexes. 2010. Science. 329:689. **Proposed by Raphaël Margueron**	
17:30-18:00	**Dörthe Nickel**	**EC Research Projects – what they have to offer**	
18:00	**POSTER SESSION - DRINKS - ANIMATION by Manolis Papamichos-Chronakis**		

Tuesday March 15th	Chair : Geneviève Almouzni / Manolis Papamichos-Chronakis		
MAINTENANCE OF GENOME INTEGRITY			
9:30-10:15	**Geneviève Almouzni** **(UMR 218, Institut Curie/CNRS Paris, France)**	**Variations on the theme of chromatin assembly**	**Amphithéâtre BDD** **11-13, rue Pierre & Marie Curie** **75005 Paris**
10:30	**Session mentored by Yunpeng Feng**	**Chromatin maturation controls replication fork speed**	
10:40-11:00	**Article presentation by Sophie Thomain**	Epigenetic instability due to defective replication of structured DNA. 2010. Molecular Cell. 40:703. **Proposed by Geneviève Almouzni**	
11:00	**BREAK "BDD Hall"**		
11:30-12:15	**Fred van Leeuwen** **(Netherlands Cancer Institute, Amsterdam The Netherlands)**	**Chromatin dynamics and histone inheritance in budding yeast**	
12:30-12:50	**Article presentation by Gabriele Wagner**	Dynamics of replication-independent histone turnover in budding yeast. 2007. Science. 315:140 - Genome-wide kinetics of nucleosome turnover determined by metablolic labeling of histones. 2010. Science. 328:116. **Proposed by Fred Van Leeuwen**	
13:00	**LUNCH "BDD Hall"**		
14:00-14:45	**Steve Jackson** **(The Gurdon Institute, Cambridge, UK)**	**Cellular responses to DNA double strand breaks in the context of chromatin**	
15:00	**Session mentored by Annelie Stralfors**	**The FUN30 chromatin remodeler, Fft3, protects centromeric and subtelomeric domains from euchromatin formation**	
15:10-15:30	**Article presentation by Salomé Adam**	53BP1 inhibits homologous recombination in Brac1-deficient cells by blocking resection of DNA breaks. 2010. Cell. 141:243. **Proposed by Steve Jackson**	
15:30	**BREAK "BDD Hall"**		
16:00-16:45	**Manolis Papamichos-Chronakis** **(UMR 218, Institut Curie/CNRS Paris, France)**	**Breaking the code: Epigenetic regulation of genome stability**	
17:00-17:20	**Article presentation by Hanneke Vlaming**	Chromatin remodelling at a DNA double-strand break site in Saccharomyces cerevisiae. 2005. Nature. 438:380 - Acetylated lysine 56 on histone H3 drives chromatin assembly after repair and signals for completion of repair. 2008. Cell. 134:231. **Proposed by Craig Peterson and Manolis Papamichos-Chronakis**	
17:30	**Lucie Sengmanivong**	**OPTIONAL: Visit of Nikon Imaging Center**	
19:30	**Farewell Cocktail & Buffet Dinner at the "Green Café"**		**12, rue Lhomond - 75005 Paris**

Wednesday March 16th	Chair : Sophie Polo & Manolis Papamichos-Chronakis		
09:30	DEBRIEFING OF THE COURSE		Amphithéâtre BDD 11-13, rue Pierre et Marie Curie 75005 - Paris
10:00 - 10:45	Thomas Down (The Gurdon Institute, Cambridge, UK)	Deconvolving the epigenome	
11:00	BREAK "BDD Hall"		
11:30- 12:30	Craig Peterson (U Mass med School, Worcester, USA)	Chromatin Dynamics and genome stability: Putting histones in their place	
13:00	LUNCH "BDD Hall"		
14:00	Farewell and departure		