

## Scientific Program

### Higher Order Genome Architecture Conference

Wednesday 1 April	Thursday 2 April	Friday 3 April	Saturday 4 April
Arrival	<b>Nuclear Organisation and Chromatin-Associated Diseases</b>	<b>Global Regulation of Chromatin States</b>	<b>Long Range Control of Gene Expression</b>
	8:30 - 9:30 IL.2 <b>Andy Belmont</b> 9:30 - 9:45 Talk O1 9:45 - 10:30 IL.3 <b>Maarten Fornerod</b>	8:30 - 9:15 IL.10 <b>Dimitris Thanos</b> 9:15 - 9:45 Talk O4 - O5 9:45 - 10:30 IL.11 <b>Dirk-Jan Kleinjan</b>	8:30 - 9:15 IL.16 <b>Denise Barlow</b> 9:15 - 9:45 Talk O14 - O15 9:45 - 10:30 IL.17 <b>Eileen Furlong</b>
	10:30 - 11:00		Coffee
	11:00 - 11:45 IL.4 <b>Thomas Cremer</b> 11:45 - 12:00 Talk O2 12:00 - 12:45 IL.5 <b>Jill Brown</b>	11:00 - 11:45 IL.12 <b>John Lis</b> 11:45 - 12:00 Talk O6 12:00 - 12:45 IL.13 <b>Marcel Dinger</b>	11:00 - 11:45 IL.18 <b>Job Dekker</b> 11:45 - 12:00 Talk O16 12:00 - 12:45 IL.19 <b>Kerstin Schmitz</b>
	12:45 - 13:45		Lunch
	13:45 - 14:30 IL.6 <b>Peter Verrijzer</b> 14:30 - 14:45 Talk O3 14:45 - 15:30 IL.7 <b>Anne Dejean</b>	13:45 - 14:30 IL.14 <b>Ana Pombo</b> 14:30 - 15:30 Talk O7 - O10	13:45 - 14:30 IL.20 <b>Wendy Bickmore</b> 14:30 - 15:30 Talk O17 - O20
	15:30 - 16:00		Coffee
15:00 - 17:00 Registration and Coffee  17:00 - 17:15 Welcome, Nick Gilbert	16:00 - 16:45 IL.8 <b>David Fitzpatrick</b> 16:45 - 17:30 IL.9 <b>Silvere Van der Maarel</b>	16:00 - 16:45 IL.15 <b>Francois Spitz</b> 16:45 - 17:30 Talk O11 - O13	16:00 - 16:45 IL.21 <b>Nigel Carter</b> 16:45 - 17:15 Talk O21 - O22 Poster Prize
17:15 - 18:15 IL.1 <b>Barbara Panning</b> 18:30 - 20:00 Buffet Dinner	17:45 - 19:30 Poster 1 (no. 1 - 45)  Refreshments	17:45 - 19:30 Poster 2 (no. 46 - )  Refreshments	18:30 - 19:00 Coach to Dinner 19:00 - 20:00 Reception
20:00 on Social Time	19:30 - 20:00 Walk or Bus to Dinner 20:00 on Dinner at Edinburgh Caves Walking Tour	19:30 - 20:00 Coach to Dinner 20:00 on Dinner at Caledonian Hotel	20:00 on Conference Dinner Playfair Library

## Wednesday April 1

<b>OPENING LECTURE</b>	
<b>Chair : Nick Gilbert</b>	
17.00 – 17.15	<p><b>Nick Gilbert</b>  <i>Institute for Genetics and Molecular Medicine, The University of Edinburgh  Edinburgh - UK</i></p> <p><b>welcome address</b></p>
IL1	<p>17.15 – 18.15</p> <p><b>Barbara Panning</b>  <i>Department of Biochemistry and Biophysics, University of California,  San Francisco - USA</i></p> <p><b>How do cells make a random choice?</b></p>
18.30 – 20.00	<b>BUFFET DINNER</b>

## Thursday April 2

<b>NUCLEAR ORGANISATION</b>  <b>Chair: Barbara Panning</b>		
IL2	08.30 – 09.30	<b>Andy Belmont</b> <i>Department of Cell and Developmental Biology, University of Illinois, Urbana-Champaign - USA</i>  <b>Insights into interphase large-scale chromatin structure from analysis of engineered chromosome regions</b>
O1	09.30 – 09.45	<b>Karen Meaburn</b> <i>National Cancer Institute, NIH Bethesda -USA</i>  <b>Breast cancer diagnostics based on interphase spatial genome positioning</b>
IL3	09.45 – 10.30	<b>Maarten Fornerod</b> <i>Dept. B4 - B4041, Netherlands Cancer Institute, Amsterdam - The Netherlands</i>  <b>Functional interactions between nuclear pore proteins and active genes inside the nucleoplasm</b>

10.30 – 11.00	<b>TEA AND COFFEE</b>
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IL4	11.00 – 11.45	<b>Thomas Cremer</b> <i>LMU Biozentrum, Grosshadernerstr. 2, 82152 Martinsried - Germany</i>  <b>Nuclear architecture studied by microscopy: where the field stands and where to move next</b>
O2	11.45 – 12.00	<b>Thomas Schwarzbraun</b> <i>Medical University, Graz - Austria</i>  <b>Mitosis updated - PICH and the anaphase threads</b>
IL5	12.00 – 12.45	<b>Jill Brown</b> <i>MRC Molecular Haematology Unit, Weatherall Institute Of Molecular Medicine, Oxford - UK</i>  <b>Gene associations: a real attraction or a chance meeting?</b>

12.45 – 13.45	<b>LUNCH</b>
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<b>CHROMATIN-ASSOCIATED DISEASES</b> <b>Chair: Andy Belmont</b>		
IL6	13.45 – 14.30	<p><b>Peter Verrijzer</b> <i>Erasmus University Medical Centre, Rotterdam - The Netherlands</i></p> <p><b>Chromatin dynamics and transcription control during cell differentiation</b></p>
O3	14.30 – 14.45	<p><b>Karen Nicole Leung</b> <i>University of California, Davis - USA</i></p> <p><b>Imprinted mammalian snoRNA clusters undergo chromatin decondensation during neuronal maturation</b></p>
IL7	14.45 – 15.30	<p><b>Anne Dejean</b> <i>ONO/INSERM U579, Institut Pasteur, Paris - France</i></p> <p><b>Role of the SUMO pathway in vivo</b></p>

15.30 – 16.00	<b>TEA AND COFFEE</b>
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IL8	16.00 – 16.45	<p><b>David R. FitzPatrick</b> <i>MRC Human Genetics Unit and Institute for Genetic and Molecular Medicine Western General Hospital, Edinburgh - UK</i></p> <p><b>Genomic approaches to human developmental biology</b></p>
IL9	16.45 – 17.30	<p><b>Silvère M. van der Maarel</b> <i>Leiden University Medical Center, Leiden - The Netherlands</i></p> <p><b>The genetic and epigenetic characteristics of facioscapulohumeral muscular dystrophy</b></p>
17.30 – 19.30	<b>POSTER SESSION I (numbers 1 – 45) and Refreshments</b>	
19.30 – 20.00 20.00 on	<b>Walk or bus to dinner. Dinner at Edinburgh Caves and Walking Tour</b>	

## Friday April 3

<b>GLOBAL REGULATION OF CHROMATIN STATES</b>		
<b>Chair: Peter Verrijzer</b>		
IL10	08.30 – 09.15	<p><b>Dimitri Thanos</b> <i>Institute of Molecular Biology, Genetics and Biotechnology, Biomedical Research Foundation, Academy of Athens, Athens - Greece</i></p> <p><b>Mechanisms of stochastic gene expression</b></p>
O4	09.15 – 09.30	<p><b>JJ L Miranda</b> <i>University of California, San Francisco - USA.</i></p> <p><b>Molecular architecture of CTCF and the insulatosome</b></p>
O5	09.30 – 9.45	<p><b>Kerstin Bystricky</b> <i>University of Toulouse - France</i></p> <p><b>Hormone induced estrogen receptor alpha mediated transcription occurs throughout the nucleus in normal and cancerous human mammary cells</b></p>
IL11	09.45 – 10.30	<p><b>Dirk-Jan Kleinjan</b> <i>Medical and Developmental Genetics, MRC Human Genetics Unit, Edinburgh - UK</i></p> <p><b>Genomic landscape of the developmental regulator Pax6 in development, evolution and disease</b></p>

10.30 – 11.00	<b>TEA AND COFFEE</b>
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IL12	11.00 – 11.45	<p><b>John T. Lis</b> <i>Department of Molecular Biology and Genetics, Biotechnology Building, Cornell University, Ithaca, New York - USA.</i></p> <p><b>The rapid and locus-wide transition of a gene from a potentiated to a highly activated state <i>in vivo</i></b></p>
O6	11.45 – 12.00	<p><b>Adam G. West</b> <i>University of Glasgow - UK</i></p> <p><b>VEZF1 sites mediate the ability of a vertebrate barrier to prevent DNA methylation</b></p>

IL13	12.00 – 12.45	<p><b>Marcel E. Dinger</b>  <i>Institute for Molecular Biosciences, University of Queensland, Brisbane - Australia</i></p> <p><b>Long noncoding RNAs: insights into function</b></p>
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12.45 – 13.45	<b>LUNCH</b>
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<b>GLOBAL REGULATION OF CHROMATIN STATES</b>		
<b>Chair: John Lis</b>		
IL14	13.45 – 14.30	<p><b>Ana Pombo</b>  <i>Genome Function Group, MRC Clinical Sciences Centre  London - UK</i></p> <p><b>Transcription complexes in epigenetics and genome function</b></p>
O7	14.30 – 14.45	<p><b>Corella Susana Casas Delucchi</b>  <i>Technische Universität Darmstadt - Germany</i></p> <p><b>Epigenetic control of heterochromatin replication</b></p>
O8	14.45 – 15.00	<p><b>Ragnhild Eskeland</b>  <i>MRC Human Genetics Unit, Western General Hospital Edinburgh - UK</i></p> <p><b>The polycomb repressive complex 1 is required to maintain compact chromatin structure at mammalian Hox loci</b></p>
O9	15.00 – 15.15	<p><b>Konstantin Halachev</b>  <i>Max Planck Institute for Informatics, Saarbrücken - Germany</i></p> <p><b>DNA methylation in pluripotent cells constitutes an epigenetic ground state that diversifies with differentiation</b></p>
O10	15.15 – 15.30	<p><b>Celine Vallot</b>  <i>Institut Curie, Paris - France</i></p> <p><b>Heterochromatin domains in cancer</b></p>

15.30 – 16.00	<b>TEA AND COFFEE</b>
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IL15	16.00 – 16.45	<p><b>François Spitz</b>  <i>Developmental Biology Unit - European Molecular Biology Laboratory,  Heidelberg - Germany</i></p> <p><b>Deciphering the regulatory architecture of mammalian genomes with chromosomal engineering</b></p>
O11	16.45 – 17.00	<p><b>Jim R. Hughes</b>  <i>MRC MHU Weatherall Institute of Molecular Medicine, Oxford - UK</i></p> <p><b>A method for the high-resolution identification of active cis elements for any given gene and its application to the human Alpha Globin locus</b></p>
O12	17.00 – 17.15	<p><b>Marcel Coolen</b>  <i>Cancer-Epigenetics lab, Garvan Institute, Sydney - Australia</i></p> <p><b>Consolidation of the cancer epigenome to regions of uniform chromatin</b></p>
O13	17.15 – 17.30	<p><b>Adele Murrell</b>  <i>University of Cambridge, Cambridge - UK</i></p> <p><b>Intra-chromosomal loops uncouple methylation and imprinted expression in cancer</b></p>
	17.30 – 19.30	<p><b>POSTER SESSION II (numbers 46 – on)  and Refreshments</b></p>
	19.30 – 20.00 20.00 on	<p><b>Free time / coach to dinner.  Dinner at Caledonian Hotel</b></p>

## Saturday April 4

### LONG RANGE CONTROL OF GENE EXPRESSION

Chair: Wendy Bickmore

IL16	08.30 – 09.15	<p><b>Denise P. Barlow</b> <i>CeMM Center for Molecular Medicine of the Austrian Academy of Science, Vienna - Austria</i></p> <p><b>Chromatin modifications differentiate imprinted genes and tissue-specific silenced genes</b></p>
O14	09.15 – 09.30	<p><b>Mohsen Karimi Arzenani</b> <i>Dept. of Molecular Medicine, Karolinska Institute, Solna - Sweden</i></p> <p><b>Genomic DNA hypomethylation by HDAC inhibition involves DNMT1 release from nuclear components</b></p>
O15	09.30 – 9.45	<p><b>Sabrina Fritah-Hnida</b> <i>CRI Inserm U823, Institut Albert Bonniot, Grenoble - France</i></p> <p><b>Histones deacetylases as novel factors of heat shock response</b></p>
IL17	09.45 – 10.30	<p><b>Eileen Furlong</b> <i>EMBL, Heidelberg - Germany</i></p> <p><b>Gene regulatory networks during development: dissecting the logic</b></p>

10.30 – 11.00

TEA AND COFFEE

IL18	11.00 – 11.45	<p><b>Job Dekker</b> <i>Program in Gene Function and Expression and Department of Biochemistry and Molecular Pharmacology, University of Massachusetts Medical School, Worcester - USA</i></p> <p><b>Three-dimensional folding of chromosomal domains in relation to gene expression</b></p>
O16	11.45 – 12.00	<p><b>Silvana van Koningsbruggen</b> <i>Wellcome Trust Centre for Gene Regulation and Expression, University of Dundee - UK</i></p> <p><b>Identification of nucleolar associated chromatin loci reveals clues for nuclear architecture</b></p>



IL19	12.00 – 12.45	<p><b>Kerstin Schmitz</b>  <i>Division of Molecular Biology of the Cell II, German Cancer Research Center DKFZ-ZMBH Alliance, Heidelberg - Germany</i></p> <p><b>Molecular mechanisms regulating the epigenetic state of rRNA genes</b></p>
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12.45 – 13.45	<b>LUNCH</b>
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<b>LONG RANGE CONTROL OF GENE EXPRESSION</b>		
<b>Chair: Job Dekker</b>		
IL20	13.45 – 14.30	<p><b>Wendy A. Bickmore</b>  <i>MRC Human Genetics Unit, Crewe Road, Edinburgh - UK</i></p> <p><b>The relationship between the nuclear periphery and gene expression in human cells</b></p>
O17	14.30 – 14.45	<p><b>Patrick J.E.C. Wijchers</b>  <i>MRC Clinical Sciences Centre, Imperial College London - UK</i></p> <p><b>Visualisation of heterochromatin-mediated silencing: targeting of HP1 and Suv39h1 to chromosomal regions in vivo in mammals</b></p>
O18	14.45 – 15.00	<p><b>Daniel Robyr</b>  <i>Department of Genetic Medicine and Development, University of Geneva Medical School, Geneva - Switzerland</i></p> <p><b>Functional interactions of conserved non-coding (CNC) sequences with other CNC using circular chromosome conformation capture (4C)</b></p>
O19	15.00 – 15.15	<p><b>Daan P. Hupkes</b>  <i>Netherlands Cancer Institute, Amsterdam - The Netherlands</i></p> <p><b>Dynamic organization of nuclear lamina associated chromatin during differentiation</b></p>

O20	15.15 – 15.30	<p><b>Hannah M. Stower</b>  <i>Institute of Biomedical Research, University of Birmingham Medical School,  Birmingham - UK</i></p> <p><b>Dynamic, transcription-independent histone modifications at Hoxb promoters in embryonic stem cells</b></p>
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15.30 – 16.00	<b>TEA AND COFFEE</b>
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IL21	16.00 – 16.45	<p><b>Nigel Carter</b>  <i>Wellcome Trust Sanger Institute, Hinxton, Cambridge - UK</i></p> <p><b>Genome Structural Variation</b></p>
O21	16.45 – 17.00	<p><b>Angelo Cellamare</b>  <i>Department of Genetics and Microbiology, University of Bari - Italy</i></p> <p><b>Organization and Evolution of centromeric regions in the White-cheeked Gibbon</b></p>
O22	17.00 – 17.15	<p><b>Thierry Voet</b>  <i>Center for Human Genetics (CME), K.U.Leuven, Leuven - Belgium</i></p> <p><b>Chromosome instability is common in human cleavage stage embryos</b></p>
<p><b>MC-GARD.eu conference series summary and award ceremony</b>  <b>Bauke Ylstra</b></p>		

18.30 – 19.00	<b>Coach to Dinner</b>
19.00 – 20.00	<b>Reception</b>
20.00 on	<b>Conference Dinner</b> <b>Playfair Library</b>

## Sunday April 4

09.30 – 14.30	<p style="text-align: center;"><b>Excursion to Inchcolm Island</b></p> <p style="text-align: center;"><b>DEPARTURE</b></p>
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