

## Thursday 6 November

08:30 – 09:00 Registration

09:00 – 09:05 Welcome by Luis Serrano (CRG Director)

09:05 – 09:10 Welcome by Juan Valcárcel (Gene Regulation, Stem Cells and Cancer Coordinator, CRG)

### Chromatin architecture & dynamics

#### Session 1 – Chair: Miguel Beato (CRG)

09:10 – 09:40 **Bas VAN STEENSEL**

*Division Gene Regulation, The Netherlands Cancer Institute, Amsterdam NL*

**"Dynamics and architecture of genome – nuclear lamina interactions"**

09:40 – 10:10 **Thomas CREMER**

*Ludwig-Maximilians-Universität München (LMU), Martinsried DE*

**"Massive and strikingly similar changes of the nuclear landscape during preimplantation development of fertilized and cloned bovine embryos"**

10:10 – 10:40 **John T. LIS**

*Department of Molecular Biology and Genetics, Cornell University, Ithaca US*

**"Targeted and genome-wide views into the mechanisms of transcription and its regulation in living cells"**

10:40 – 10:50 **Colin A. SEMPLÉ**

*MRC Institute of Genetics and Molecular Medicine, University of Edinburgh, Edinburgh UK*

**"Integrative modeling reveals the principles of multi-scale domain boundary formation in nuclear organization"**

10:50 – 11:00 **Sandra PEIRÓ**

*Institut Hospital del Mar d'Investigacions Mèdiques (IMIM), Barcelona ES*

**"LOXL2 oxidizes methylated TAF10 and controls neural progenitor specification"**

11:00 – 11:30 coffee break

#### Session 2 – Chair: Guillaume Filion (CRG)

11:30 – 12:00 **Edith HEARD**

*Genetics and Developmental Biology, Institute Curie, Paris FR*

**"Genetic and epigenetic control of X-chromosome inactivation"**

12:00 – 12:30 **Victor CORCES**

*Department of Biology, Emory University, Atlanta US*

**"The role of architectural proteins in the three-dimensional organization of the chromatin"**

12:30 – 12:40 **Chiara DI VONA**

*Centre for Genomic Regulation (CRG), Barcelona ES*

**"A novel role for the DYRK1A protein kinase as a chromatin-associated transcriptional regulator"**

- 12:40 – 12:50 **Maria Aurelia RICCI**  
*Centre for Genomic Regulation (CRG), Barcelona ES*  
"Nucleosomes form discrete clutches along the chromatin fiber and clutch size correlates with cell pluripotency"
- 12:50 – 13:05 poster speed presentations (**coral**)
- 13:05 – 14:30 lunch & poster session

## Mechanisms of gene regulation

### Session 3 – Chair: Luciano Di Croce (CRG)

- 14:30 – 15:00 **Patrick CRAMER**  
*Max Planck Institute for Biophysical Chemistry, Göttingen DE*  
"Towards molecular systems biology of genome transcription"
- 15:00 – 15:10 **Roni H. G. WRIGHT**  
*Centre for Genomic Regulation (CRG), Barcelona ES*  
"Nuclear ATP synthesis derived from ADP-ribose is essential for Chromatin Remodeling and Hormonal Gene Regulation in Breast Cancer Cells"
- 15:10 – 15:20 **Ulrich BRAUNSCHWEIG**  
*Donnelly Centre, University of Toronto, Ontario CA*  
"Widespread intron retention in mammals functionally tunes transcriptomes"
- 15:20 – 15:30 **Travis H. STRACKER**  
*Institute for Research in Biomedicine (IRB Barcelona), Barcelona, ES*  
"CEP63 deficiency promotes p53 dependent microcephaly and reveals a role for the centrosome in meiotic recombination"
- 15:30 – 15:45 poster speed presentations (**turquoise**)
- 15:45 – 16:30 coffee break

### Session 4 – Chair: Fátima Gebauer (CRG)

- 16:30 – 17:00 **Nikolaus RAJEWSKY**  
*Max-Delbrück-Centrum für Molekulare Medizin (MDC), Berlin DE*  
"Regulatory RNAs"
- 17:00 – 17:10 **Laurence WURTH**  
*Centre for Genomic Regulation (CRG) and University Pompeu Fabra (UPF), Barcelona ES*  
"Oncogenic properties of the RNA-binding protein UNR: Targets in Melanoma"
- 17:10 – 17:40 **Robert J. SCHNEIDER**  
*NYU School of Medicine, Alexandria Center for Life Sciences, New York US*  
"The mRNA binding protein AUF1 controls skeletal muscle stem cell fate, linking AUF1 mutation to the development of limb girdle muscular dystrophy"

- 17:40 – 17:50 **Chris VAN OEVELEN**  
*Centre for Genomic Regulation (CRG), Barcelona ES*  
“**C/EBPa induced immune cell transdifferentiation reveals two complementary macrophage enhancer pathways during hematopoiesis**”
- 17:50 – 18:00 poster speed presentations (**grey**)

### Poster Session

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- 18:00 – 20:00 Poster Session & pica pica

## Friday 7 November

### Cell reprogramming, aging & cancer

#### Session 5 – Chair: Bill Keyes (CRG)

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- 09:00 – 09:30 **Judith CAMPISI**  
*Buck Institute for Research on Aging, Novato US*  
“**Stem cells, cancer and aging: the cellular senescence connection**”
- 09:30 – 10:00 **Kenneth ZARET**  
*Department of Cell and Developmental Biology, Smilow Center for Translational Research, Philadelphia US*  
“**Mechanisms for Programming Cell Fate**”
- 10:00 – 10:30 **Markus GROMPE**  
*Oregon Stem Cell Center and Papé Family Pediatric Research Institute, Oregon Health & Science University, Portland US*  
“**Mature hepatocytes are a source of bipotential oval cells in chronic liver injury**”
- 10:30 – 11:00 **Denis DUBOULE**  
*École Polytechnique Fédérale de Lausanne (EPFL) and University of Geneva, CH*  
“**Long-range regulation during development and evolution**”
- 11:00 – 11:10 **Lorenzo RINALDI**  
*CRG/IRB*  
“**Dynamic Expression of the de novo DNA Methyltransferases DNMT3A and DNMT3B during epidermal stem cells differentiation**”
- 11:10 – 11:20 poster speed presentations (**white**)
- 11:20 – 11:50 coffee break

#### Session 6 – Chair: Thomas Graf (CRG)

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- 11:50 – 12:20 **Scott LOWE**  
*Cancer Biology & Genetics Program, Memorial Sloan Kettering Cancer Center, New York US*  
“**Cancer Drivers and Dependencies**”



- 12:20 – 12:50 **Austin SMITH**  
*Medical Research Council & Wellcome Trust/MRC Stem Cell Institute, University of Cambridge, Cambridge UK*  
**"Pluripotent stem cells: capture of the ground state"**
- 12:50 – 13:00 **Mekayla STORER**  
*Centre for Genomic Regulation (CRG) and University Pompeu Fabra (UPF), Barcelona ES*  
**"Investigating A Novel Role For Senescence-Associated Stem Cell Gene Expression"**
- 13:00 – 13:30 **Marius WERNIG**  
*Institute for Stem Cell Biology and Regenerative Medicine, Stanford University School of Medicine, Stanford US*  
**"Direct lineage reprogramming towards the neural lineage"**
- 13:30 – 14:00 **Manuel SERRANO**  
*Spanish National Cancer Research Centre (CNIO), Madrid ES*  
**"Reprogramming *in vivo* and its impact on tissue homeostasis and regeneration"**
- 14:00 – 15:00 lunch & poster session

#### **Satellite Course@CRG Inaugural Session**

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- 15:00 – 15:10 Welcome by Pia Cosma (CRG)
- 15:10 – 15:40 Luigi NALDINI, TIGET, Milan, Italy.
- 15:40 – 16:10 Petra HAJKOVA, MRC, London, UK.
- 16:10 – 16:40 Angel RAYA, IBEC, Barcelona, Spain.
- 16:40 – 17:10 coffee break
- 17:10 – 17:40 Ian CHAMBERS, MRC, Edinburgh, UK.
- 17:40 – 18:10 Eran MESHORER, Hebrew University of Jerusalem, Israel.
- 18:10 – 18:40 Thomas GRAF, CRG, Barcelona, Spain.