



# Barcelona BioMed Conference

## The DNA damage response in human disease

### May 28-30, 2012

## Programme

### Monday, May 28, 2012

8.30 Registration

9.00 Welcome by Joan Joan J. Guinovart, IRB Barcelona Director

#### Session I: Chair John H.J. Petrini

9.15 **Patrick Sung**  
Smc5-mediated Regulation of Mph1 in Replication Fork Repair

9.55 **Stephan Jentsch**  
Monitoring Homology Search In Vivo

10.35 Coffee break and poster session

11.10 **Jiri Lukas**  
Spatial and temporal reprogramming of chromatin after DNA damage and replication stress

11.50 **Monica Gostissa**  
Defining principles of intra- and inter-chromosomal translocations in lymphoid cells

12.30 Short talk: **Ivan Psakhye**  
A DNA Damage-triggered SUMOylation Wave Accelerates DNA Repair By Acting Synergistically on Multiple Repair Proteins

12.50 Short talk: **Michal Malewicz**  
NR4A nuclear orphan receptors directly regulate DNA repair as DNA-PK substrates

13.10 - 15.00 Lunch (FresCo, C/ Carme, 16)

#### Session II: Chair Patrick Sung

15.00 **Jos Jonkers**  
Therapy response and resistance in mouse models of BRCA-associated breast cancer

15.40 **David Cortez**

SMARCAL1 catalyzes fork regression and Holliday junction migration to maintain genome stability during DNA replication

16.20 Coffee break and poster session

17.00 **Andrés Aguilera**

Recombination-mediated instability and replication-born DNA breaks

17.40 Short talk: **Arnab Ray Chaudhuri**

Topoisomerase I poisoning results in PARP-mediated replication fork reversal

18.00 Poster session

## **Tuesday, May 29, 2012**

### **Session III: Chair Peter McKinnon**

9.00 **Stephen C. Kowalczykowski**

Mechanism and visualization of human recombinational DNA repair: roles of BLM AND BRCA2

9.40 **Lorraine Symington**

RPA is required for extensive DNA end resection and stability of ssDNA

10.20 Coffee break and poster session

11.00 **Neil Hunter**

Joint molecule resolution during meiotic recombination

11.40 **Daniel Durocher**

Breaks on the move: regulation of DNA repair by yeast kinesin-14

12.20 Short talk: **Ivan Ahel**

The structure and catalytic mechanism of poly(ADP-ribose) glycohydrolases

12.40 Short talk: **Ana Maria Rojas**

DDR Evolutionary Landscape: core components and evolutionary signatures

13.10 - 15.00 Lunch (FresCo, C/ Carme, 16)

### **Session IV: Oskar Fernandez Capetillo**

15.00 **Vincenzo Costanzo**

Understanding the role of DNA damage response factors in vertebrate DNA replication

15.40 **Peter McKinnon**

DNA Damage Signaling, ATM and Neurogenesis

16.20 Coffee break and poster session

17.00 **KJ Patel**

Alcohol, Toxic metabolism and DNA repair

17.40 Short talk: **Chiara Gorrini**

The tumor suppressor BRCA1 controls an Nrf2-dependent antioxidant response

18.00 Poster session

20.30 Speakers dinner

## **Wednesday, May 30, 2012**

### **Session V: Chair Lorraine Symington**

9.00 **Jordi Surrallés**

A novel Fanconi anemia gene mutated in three genome instability disorders

9.40 **Oskar Fernández-Capetillo**

Exploring the role of replicative stress in cancer and ageing

10.20 Short talk: **Felipe Cortés Ledsema**

Topoisomerase II-induced DNA breaks and genome instability

11.00 Coffee break and poster session

11.20 Short talk: **David Aristizabal Corrales**

The 14-3-3 gene *par-5* is required for germline development and DNA damage response in *Caenorhabditis elegans*

11.40 **Eros Lazzerini-Denchi**

A two-step mechanism for TRF2-mediated chromosome end protection

12.20 **John H.J. Petrini**

Genetic analysis of chromosome break metabolism in eukaryotic cells

13.00 Concluding remarks: John H.J. Petrini