



Boehringer Ingelheim Fonds
Stiftung für medizinische
Grundlagenforschung

PROGRAMME

108th International Titisee Conference Causes and consequences of aneuploidy

Schwarzwaldhotel Titisee, October 23-27, 2013



Wednesday, October 23, 2013

Arrival of participants

6.00 p.m. *Welcome reception at the bar*

6.30 p.m. *Dinner*

8.00 p.m. **Claudia Walther, Angelika Amon**
Opening remarks

8.10 p.m. **Keynote lecture: Don W. Cleveland**
Guarding the genome: centromeres, aneuploidy and tumorigenesis

Thursday, October 24, 2013

Session 1: **Aneuploidy and cancer**
Chair: **Marcos Malumbres**

- 9.00 – 9.25 a.m. **Robert Benezra**
Modelling the consequences of aneuploidy in the mouse
- 9.25 – 9.50 a.m. **Jan van Deursen**
Age-related aneuploidization in cancer and ageing
- 9.50 – 10.15 a.m. **Rocio Sotillo**
Consequences of Mad-2-induced chromosome instability in breast cancer
- 10.15 – 10.30 a.m. **Floris Foijer**
Conditional mouse models for chromosomal instability
- 10.30 – 11.00 a.m. *Coffee break*
- 11.00 – 11.25 a.m. **Thomas Ried**
Genome and transcriptome dynamics in cancer cells
- 11.25 – 11.50 p.m. **Peter Campell**
Interrogating the architecture of cancer genomes
- 11.50 – 12.05 p.m. **Luis A. Pérez Jurado**
Early onset clonal mosaicism for chromosomal rearrangements and its implication in ageing and cancer

12.30 p.m. *Lunch*

Session 2: **Consequences of aneuploidy**
Chair: **Camilla Sjögren**

- 3.30 – 3.55 p.m. **Pumin Zhang**
Activation of cell cycle checkpoints in response to internal and external stimuli
- 3.55 – 4.20 p.m. **Stephen Taylor**
Post-mitotic responses to chromosome mis-segregation
- 4.20 – 4.35 p.m. **Zuzana Storchova**
Aneuploidy and maintenance of protein homeostasis in human cells
- 4.35 – 4.50 p.m. **Daniela Cimini**
Mechanisms and effects of chromosome mis-segregation and aneuploidy
- 4.50 – 5.20 p.m. *Coffee break*
- 5.20 – 5.45 p.m. **Holger Bastians**
Increased microtubule growth rates mediate chromosomal instability in colorectal cancer
- 5.45 – 6.10 p.m. **Angelika Amon**
Consequences of aneuploidy
- 6.10 – 6.25 p.m. **Eduardo Torres**
Attenuation of protein levels in aneuploid cells improves their fitness
- 6.30 p.m. *Dinner*

Friday, October 25, 2013

Session 3: Mechanisms of chromosome segregation: centrosomes and kinetochores **Chair: Don W. Cleveland**

- 08.30 – 8.55 a.m. **Jan-Michael Peters**
How cohesion controls chromatin structure and chromosome segregation
- 8.55 – 9.20 a.m. **Renata Basto**
Investigating the consequences of aneuploidy during development and in the establishment of disease
- 9.20 – 9.45 a.m. **Erich Nigg**
Chromosome segregation: focus on kinetochores and spindle poles
- 9.45 – 10.00 a.m. **Mónica Bettencourt Dias**
Control of centrosome biogenesis
- 10.00 – 10.15 a.m. **Andrew Holland**
Controlling centrosome number
- 10.15 – 10.45 a.m. *Coffee break*
- 10.45 – 11.10 a.m. **Duane A. Compton**
Mechanisms of chromosomal instability in human cancer cells
- 11.10 – 11.35 a.m. **Geert Kops**
Evolution and function of a regulatory network for error-free chromosome segregation
- 11.35 – 12.00 p.m. **Jonathon Pines**
Towards a quantitative model for the spindle assembly checkpoint
- 12.00 – 12.25 p.m. **Susanne Lens**
Overexpression of Sgo1 causes chromosomal instability through inhibition of Aurora B
- 12.30 p.m. *Lunch*

Session 4: Mechanisms of chromosome segregation: cohesion and cortex **Chair: Renata Basto**

- 3.15 – 3.40 p.m. **Michael Lampson**
Violations of Mendel's first law: non-random chromosome segregation in meiosis
- 3.40 – 4.05 p.m. **Ana Losada**
Modelling cohesin dysfunction in mice
- 4.05– 4.20 p.m. **Camilla Sjögren**
DNA topology and chromosome dynamics
- 4.20 – 4.50 p.m. *Coffee break*

- 4.50 – 5.15 p.m. **Marie-Hélène Verlhac**
A soft cortex promotes asymmetric division in mouse oocytes
- 5.15 – 5.30 p.m. **Mark Petronzki**
Actomyosin contractility threatens nuclear and genome integrity – the dark side of the force
- 5.30 – 5.55 p.m. **Ursula Eichenlaub-Ritter**
Errors in chromosome distribution in human oocytes: from polar body analysis to models on the origin of age-related aneuploidy and future perspectives
- 5.55 – 6.20 p.m. **Patricia A. Hunt**
New perspectives on meiotic aneuploidy and the human maternal age effect
- 6.30 p.m. *Dinner*
- 8.00 p.m. *Concert*

Saturday, October 26, 2013

Session 5: Targeting aneuploidy in cancer **Chair: Geert Kops**

- 9.00 – 9.25 a.m. **Tak Wah Mak**
Targeting aneuploidy in cancer: can it be done?
- 9.25 – 9.50 a.m. **Marcos Malumbres**
Exploiting the *in vivo* requirements for mitotic regulators in cancer therapy
- 9.50 – 10.15 a.m. **Rene Medema**
Exploiting chromosome instability in cancer treatment
- 10.15 – 10.30 a.m. **Francesca Degrossi**
Kinetochore–microtubule interactions as target in anti-cancer therapy
- 10.30 – 11.00 a.m. *Coffee break*
- 11.00 – 11.25 a.m. **Beth Weaver**
Aneuploidy and chromosomal instability in tumour promotion, suppression and response to chemotherapy
- 11.25 – 11.50 p.m. **Hauke Cornils**
Mechanisms to control the proliferation of genomically unstable tetraploid cells
- 11.50 – 12.05 p.m. **Yun-Chi Tang**
Targeting aneuploidy for cancer therapy
- 12.30 p.m. *Lunch*
- 1.30 – 3.30 p.m. **Poster-session in the hotel hall and bar (please find agenda below)**

Session 6: When aneuploidy is normal and beneficial

Chair: Ana Losada

- 3.30 – 3.55 p.m. **Joris R. Vermeesch**
The cleavage stage embryo is a cradle of chromosomal disorders
- 3.55 – 4.20 p.m. **Jan P. Dumanski**
Post-zygotic mosaicism for large-scale chromosomal aberrations among elderly people: what does it mean?
- 4.20 – 4.45 p.m. **Jerold Chun**
Genomic mosaicism in the developing brain
- 4.45 – 5.15 p.m. *Coffee break*
- 5.15 – 5.40 p.m. **Celia Payen**
Inverted duplication: evidence for a replicative mechanism
- 5.40 – 6.05 p.m. **Yitzak Pilpel**
The transient role of aneuploidy in evolutionary adaptation in yeast
- 6.30 p.m. *Cocktails*
- 7.00 p.m. *Farewell dinner*

Sunday, October 27, 2013

Departure after breakfast

108th International Titisee Conference

Causes and consequences of aneuploidy

Poster Session at Saturday, October 26, 2013, Lunchtime

Amalie Dick

Kinetic framework of spindle assembly checkpoint signaling

Neil J. Ganem

Activation of the hippo tumour suppressor pathway limits the proliferation of oncogenic tetraploid cells

Jens K. Habermann

The impact of aneuploidy for personalized medicine in breast and colorectal cancer

Silke Hauf

Cellular noise jeopardizes spindle assembly checkpoint signalling

Chiara Marozzi

Investigating the role of E2 enzymes in mitosis using degron technology

Marco Milán

CIN-induced tumorigenesis in *Drosophila*

Jason Sheltzer

A transcriptional signature of primary aneuploidy in chromosomally-unstable tumours informs clinical prognosis

Sarah L. Thompson

Activation of p38 prevents proliferation in response to aneuploidy

Anders Valind

Elevated tolerance to aneuploidy in cancer cells

Benjamin Vitre

Mouse models to investigate the contribution of centrosome amplification in tumorigenesis