

46th Symposium of the Society for Histochemistry

Prague, 22-25 September, 2004

The Cell Nucleus

Program

21-22 September

Pre-Symposium Workshop "Fluorescence Detection of Antigens"

Wednesday, 22 September

- 14:00 Registration desk open
- 18:00-18:30 Symposium opening - C.J.F. VAN NOORDEN, President of the Society
Awarding the Young Histochemist Awards
- 18:30-19:15 The Feulgen Lecture: Stan FAKAN: The functional architecture of the nucleus as analysed by ultrastructural cytochemistry
- 19:30 Welcome party

Thursday, 23 September

- 8:30-10:05 **Workshop I: Dynamics of the nucleus, chromosomes and chromatin (Part I)**
Chair: WACHTLER F.
- HERNANDEZ-VERDUN D.: The dynamics of nucleolar assembly (invited)
- MARTIN C.: Dynamics of centromeres and pericentric heterochromatin during early embryogenesis
- MERICO V.: 3-D localisation of centromeres and chromocenters in preimplantation mouse embryos
- DIEKMANN S.: Functional complementation of human centromere protein A (CENP-A) by Cse4p from *Saccharomyces cerevisiae*
- SZABO G.: Loop-size fragility of chromatin isolated from normal cells
- 10:05-10:25 Break
- 10:25-12:00 **Workshop I: Dynamics of the nucleus, chromosomes and chromatin (Part II)**
Chair: HOZÁK P.
- AEBI U.: Actin moving in and out of the nucleus - in what form and

what for (invited)

HARATA M.: Actin-related proteins required for chromatin and nuclear organization

POST J.N.: Photoactivatable-GFP-H2AVD as a tool for studying nuclear architecture and chromatin mobility

DAHL K. N.: Mechanical properties of isolated nuclear envelopes

FORNEROD M.: Supraphysiological nuclear export signals stably bind to CRM1 independently of RanGTP and arrest at nucleoporin Nup358

12:00-13:00 **Poster session (Part I - odd numbers of posters)**

13:00-14:00 Lunch

14:00-18:00 Free afternoon

14:00-16:00 *Leica Demo - Cryosectioning according to Tokuyashu*

16:00-18:00 *Leica Demo – High-pressure freezing (EMPACT)*
(Please book in advance at the Leica booth)

18:00-19:00 Dinner

19:00-20:35 **Workshop II: Nuclear structure and gene expression (Part I)**

Chair: BIGGIOGERA M.

CREMER T.: From chromosome territories to a functional suprachromosomal nuclear architecture (invited)

SHEN C.-K. J.: Modeling of a transcriptionally competent complex in transcriptionally inactive cells

DUNDR M.: Non-phosphorylated human La protein is concentrated at discrete nucleolar foci, and interacts with some snoRNAs and nucleolin

KYSELÁ K.: Connection between nuclear actin, myosin and cell metabolism

HOZÁK P.: Nuclear myosin I and actin are required for transcription of ribosomal RNA genes

20:35-20:55 Break

20:55-22:00 **Workshop II: Nuclear structure and gene expression (Part II)**

Chair: SCHILLING K.

VERSCHURE P.: Chromosome organization and gene regulation of the eukaryotic genome (invited)

KRAWCZYK P.M.: Dynamics of DNA double-strand breaks revealed by clustering of damaged chromosome domains

STAVREVA D.: A role for the ubiquitin-proteasome system in ribosome biogenesis regulation

Friday, 24 September

8:30-10:15 **Workshop III: New approaches in nuclear/cell research (Part I)**
Chair: ROTH J.

HEMMERICH P.: Kinetics of nuclear proteins as measured by Fluorescence Correlation Spectroscopy (invited)

JANÁČEK J.: Spatial statistics of immunogold labelling experiments (invited)

DUBERTRET B.: Design and principles of Quantum Dots and their use in biological applications (invited)

10:15-10:35 Break

10:35-11:50 **Workshop III: New approaches in nuclear research (Part II)**
Chair: MOSGÖLLER W.

VOORHOUT W. F. (FEI): Electron tomography for life sciences

TOUSIMIS A.J. (TOUSIMIS): History and theory of the critical point drying process

WIDLAK P.: DNA microarrays in global survey of chromatin accessibility

11:50-12:50 **Poster session (Part II - even numbers of posters)**

12:50-13:20 Business meeting of the Society for Histochemistry

13:20-14:20 Lunch

14:20-15:40 **Workshop IV: Cell nucleus and disease (Part I)**
Chair: SMETANA K.

FOISSNER R.: Lamina protein dynamics and functions in the context of laminopathic diseases (invited)

GOTZMANN J.: The novel human LEM-domain protein LEM2 localizes to the nuclear envelope in a lamina-dependent fashion

PROSPERI E.: Nuclear localisation of p21CDKN1a does not affect PCNA-dependent nucleotide excision repair in human cells

PIECHACZYK M.: Modification by SUMO modifies the intracellular and intranuclear dynamics of c-fos and silences AP-1 transcriptional activity

15:40-16:00 Break

16:00-17:20 **Workshop IV: Cell nucleus and disease (Part II)**
Chair: PELLICCIARI C.

SMETANA K.: Are large compact nucleoli always present in proliferating leukemic cells? (invited)

SCOVASSI A.I.: Poly(ADP-ribosylation) during apoptosis: a cross talk between mitochondria and nucleus

TONE S.: Distinct steps of apoptotic nuclear condensation: analysis of cell-free apoptosis by time-lapse imaging and electron microscopy

DOBRUCKI J.: The role of histone H1 in stabilizing higher-order structures of chromatin. Histone dynamics in cells exposed to antitumour anthracyclines

18:00

Guided mini-tour via Prague Castle (walking)

19:00

Visit to the Strahov Monastery library

20:00

Symposium banquet - Strahov Monastery Brewery

Saturday, 25 September

9:00-10:45 **Workshop V: Free communications (Part I)**

Chairs: M. PAVELKA and WERNER M.

BAADER S.: Tetraspanin-5 mRNA expression parallels neuronal maturation in the cerebellum of normal and I7en-2 transgenic mice

MOSGOELLER W.: Vasoactive intestinal peptide signalling in lung

MYLONAS I.: Glycodelin a is differentially expressed in normal human endometrial tissue throughout the menstrual cycle as assessed by immunohistochemistry and in situ hybridisation

SCHINDLBECK Ch.: Characterization of disseminated tumor cells in the bone marrow of breast cancer patients by Thomsen-Friedenreich-antigen

SMETANA Jr. K.: Nuclear reactivity for growth regulatory galectin-1: a marker for epidermal stem cells?

WIDLAK W.: Regulation of the expression of the testis-specific heat shock gene hst70

MYLONAS I.: Examination of the inhibin-/activin-subunits in trophoblast carcinoma cell lines of the cell line bewo

11:00-11.15 Closure of the Symposium - C.J.F. VAN NOORDEN, President of the Society

11:15-12:00 Check-out

12:00-13.00 Lunch, departure