



## **Euroworkshop on Interdisciplinary Perspectives of Diagnostic Pathology, Cell Biology, and Morphometry**

Heidelberg, Conference Center of the German Cancer Research Center (DKFZ)

December 8 – 10, 2000

### **Program**

#### **Friday, December 8, 2000**

19.00 Registration and Introduction, Get-together Party

#### **Saturday, December 9, 2000**

##### **PLENARY SESSION**

09.00 – 09.10 Welcome address (F von Bohlen und Halbach, Mayor's office)

09.10 – 09.15 Welcome and principal comments (K Kayser)

09.15 – 09.45 Information transfer beyond the genetic code: the sugar code (H-J Gabius)

09.45 – 10.10 Biosignaling in the sugar code (A Villalobo)

10.10 – 10.40 Coffee Break

# SESSIONS OF CELL BIOLOGY/GLYCOSCIENCES AND PATHOLOGY EXPERTS

## Cell biology/glycosciences

- 10.40 – 11.10 NMR investigations in protein-carbohydrate interactions (J Jimenez-Barbero)
- 11.10 – 11.40 X-ray crystallography of galectins (A Romero)
- 11.40 – 12.10 Design of pharmaceuticals to interfere with protein-carbohydrate interactions (R Pieters)
- 12.10 – 12.45 Discussion of perspectives

## Pathology

- 10.40 – 11.05 Three-dimensional reconstruction in pathology (J Salisbury)
- 11.05 – 11.30 Automated machine vision in diagnostic pathology (P Hamilton)
- 11.30 – 11.55 Nuclear texture analysis (T Mairinger)
- 11.55 – 12.20 Contribution of image analysis to the quantification of blood vessels in ovarian tumors (K Tran)
- 12.20 – 12.45 Discussion of perspectives
- 12.45 – 14.15 Lunch

## PLENARY SESSION

- 14.15 – 14.45 Glycohistochemistry: basic concept and applications in histology and pathology (A Danguy)
- 14.45 – 16.45 Poster discussion/Educational seminars
- 16.45 – 17.15 Coffee break

## Cell biology/glycosciences

- 17.15 – 17.40 Application of mass spectrometry in analyzing protein-carbohydrate interactions (A Heck)
- 17.40 – 19.00 Poster discussion/Teaching course on new methodological advances

## Pathology

- 17.15 – 17.40 Problem solving in modern pathology (Y Collan)
- 17.40 – 18.05 Interdisciplinary pathology, demonstrated for lung pathology (L Carvalho)
- 18.05 – 18.30 Telecommunication in pathology (J Szymas) (seminar)
- 18.30 – 18.55 Interdisciplinary approach and general remarks (K Kayser, E Vollmer) (seminar)

Dinner

**Sunday, December 10, 2000**

**SESSIONS OF CELL BIOLOGY/GLYCOSCIENCES AND PATHOLOGY EXPERTS**

**Cell biology/glycosciences**

08.30 – 08.55 Lessons from KO mice (F Poirier)

08.55 – 09.20 Insights into the role of galectins in motility and proliferation (I Camby)

09.20 – 09.45 Galectin-8: regulator of cell adhesion and apoptosis (Y Zick)

09.45 – 10.15 Discussion of perspectives

**Pathology**

08.30 – 08.55 Three-dimensional reconstruction in pathology (J Salisbury)

08.55 – 09.20 Decision support models (Y Collan)

09.20 – 09.45 Classic methods in statistics (P Hamilton)

09.45 – 10.15 Teaching course in morphometry and case seminar (Y Collan, K Kayser, T Mairinger)

10.15 – 10.45 Coffee break

**Cell biology/glycosciences**

10.45 – 11.30 Meet the Speaker session

**Pathology**

10.45 – 11.30 Teaching course in telepathology (J Szymas, K Kayser), and Meet the speaker session

**PLENARY SESSION**

11.30 – 12.30 Round table to define perspectives for interdisciplinary projects and concluding remarks (H-J Gabius, K Kayser)

12.30 Lunch

end of the workshop

POSTER SESSION

Y. Collan, T. Kuopio, P. Jalava, A. Elzagheid, A. Buhmeida, M. Aaltonen, P. Kronqvist  
**Decision support models**

R. Mazzucchelli, A. Santinelli, P. Colanzi, R. Pornante, R. Montironi  
**Karyometrie analysis of normal-looking columnar epithelium adjacent to and distant from high grade PIN and prostate cancer.**

M. Dragomir, B. Ioana, C. Tudose  
**Histological research regarding the development of human dental bud papillia**

M. Dragomir, B. Ioana, C. Tudose  
**The autofluorescence of normal and carious dentin in human teeth and its relationship with entin mineralisation degree**

M. Jiménez, JI. Laynez, A. Romero, J. Jiménez-Barbero, S. André, H-J. Gabius, D. Solís  
**Structural basis for differences in carbohydrate recognition by the homologous toxic lectins viscumin and ricin**

H. Kaltner, W. Dettmann, M. Grandbois, M. Benoit, A.K. Wehle, S. André, H-J. Gabius, H.E. Gaub  
**How stable are sugar receptor (lectin, antibody) - ligand ( $\beta$ -galactoside) complexes at increasing forces?**

H. Lahm, S. André, A. Hoeflich, J. R. Fischer, B. Sordat, H. Kaltner, E. Wolf, H.-J. Gabius  
**Galectinomics (Galectin-1, -2, -3, -4, -7, -8 and -9 fingerprinting) in human tumor cell lines**

H. Lahm, A. Hoeflich, S. André, B. Sordat, H. Kaltner, E. Wolf, H.-J. Gabius  
**Identification of a novel isoform of galectin-8 in human colorectal carcinoma cell lines**

S. André, B. Frisch, H. Kaltner, D. Lima Desouza, F. Schuber, H.-J. Gabius  
**Cluster glycosides in drug targeting: will they distinguish between different families of endogenous lectins?**

S. André, P. J. C. Ortega, M. Alamino Perez, R. Roy, H-J. Gabius  
**Will starburst glycodendrimers display sugar-receptor-dependent properties important for their capacity as cell-adhesion inhibitor?**

M.A. Canales, J.M. Alonso-Plaza, A. García-Herrero, L. Iturrino, M. Jiménez, D. Solís, JI. Asensio, FJ. Cañada, H-C.Siebert, S. André, H-J.Gabius, J. Jiménez-Barbero  
**NMR Investigations of Protein-Carbohydrate Interactions. Insights on the Bound Conformation of beta-Galactosyl Xyloses to Mistletoe Lectin and to Galectin-1**

C. Zachariou, VD. Malamou-Mitsi, J. Georgiou, N.J. Agnantis

**Detection of P53 gene mutations in breast cancer by denaturing gradient gel electrophoresis (DGGE)**

A. Charhanti, E. Ioachim, B. Fyden, N.J. Agnantis

**Ultrastructural and immunohistochemical observations on amorphous matrices related to basal lamina in breast cancer**

J.D. Baumhäkel, K. Kayser, J. Kos, E. Spiess, W. Ebert, W. Fiehn, B. Werle

**Increased Cluster-Formation of Cathepsin B-positive Tumor Cells in Squamous Cell Carcinomas of the Lung**

M.F. López-Lucendo, D. Solís, T. Díaz-Mauriño, H. Kaltner H.-J. Gabius, A. Romero

**Structure of human galectin-1: comparison of gal-1 C2S and R111H mutants with the native protein**

A. Romero, M.F. López-Lucendo, P.F. Varela, D. Solís, T. Díaz-Mauriño, H. Kaltner, H.-J. Gabius

**Structural Studies on Galectins**