Fourth Weissenburg Symposium - Biriciana

Symposium der Nationalen Akademie der Wissenschaften - Leopoldina

Epigenetics and the Regulation of Gene Expression

June 20 to 22, 2011

Venue of Symposium:
Kulturzentrum Karmeliter Kirche, Weißenburg in Bayern

Organized by
Walter Doerfler, Erlangen/Köln
Bernhard Fleckenstein, Erlangen
Ulf Pettersson, Uppsala

Support
Fritz Thyssen Stiftung, Köln
Nationale Akademie der Wissenschaften Leopoldina, Halle
Alfried Krupp von Bohlen und Halbach Stiftung, Essen
Institut für Virologie, Universität Erlangen-Nürnberg
Stadt Weißenburg in Bayern
This Symposium Commemorates the 30th Anniversary of the First Symposium on

DNA Methylation and Genome Organization:
Cologne Spring Meeting March 4-7, 1981

The Weissenburg Symposia:

1. Medicine and Molecular Biology, May 03-06, 2001
2. DNA Methylation - An Important Genetic Signal: Its Significance in Biology and Medicine, May 12-15, 2004

Venue of Symposium:

It is a pleasure to inform you that we will be able to continue the tradition of the Weissenburg Symposia. Studies on epigenetic mechanisms have assumed an important role in biology and medicine. An understanding of genes and their mutations do not suffice to explain the multitude of phenomena in biology and medicine.

Weissenburg in Bayern is a town of some 17,600 inhabitants with a history dating back to the time of the Roman Empire. Biriciana was an encampment of the Roman Army (Ala I Hispanorum Auriana, a Spanish cavalry battalion serving the Roman Army) which protected the Roman Limes (today, World Cultural Heritage). Remnants of Roman constructions and an exquisite treasure of deity statuettes from one of the finest Roman workshops (probably Rome or Syria) remind us of Roman hegemony in the area. During the middle ages, Weissenburg was an Imperial Free City (Freie Reichsstadt).

The venue of our symposium will be a former Carmelite monastery dating to 1325 which has been commuted to the town’s cultural center. Weissenburg is located close to Munich, Nuremberg, and not too far from Prague. It is part of the Naturpark Altmühltal, the largest Nature Park in Germany and close to the Franconian Lake District.

We should like to extend a cordial welcome to all of you. Please note, you do not have to register but you will have to organize your own travel and hotel accommodations: http://www.weissenburg.info/gastgeber/ or call +49-9141-907-124.
Program

Monday, June 20, 2011

9:00 - 9:30 Introduction – Walter Doerfler, Erlangen/Köln

Welcome addresses:
Jürgen Schröppel, Oberbürgermeister Weißenburg
Leopoldina Representative

Keynote Lecture

9:30 – 10:00 Uta Francke, Stanford University: Epigenetic Mechanisms in Human Genetic Disorders.

Session I– Mechanisms of Chromatin Organization and Promoter Control.

Chair - Bernhard Fleckenstein, Erlangen

10:00 – 10:30 Gary Felsenfeld, NIH: Chromatin Boundaries, Insulators, and the Epigenetic Regulation of Gene Expression.

10:30 – 11:00 Rolf Ohlson, Karolinska Institutet: The Dual Epigenetic Basis of Chromatin Networks.

11:00 – 11:30 Coffee Break

11:30 – 12:00 Eric Selker, Eugene, Oregon: Use of the Fungus Neurospora crassa to Elucidate the Control of DNA Methylation.

12:00 – 12:30 Peter Becker, LMU, München: Vital Fine-tuning of Transcription through Chromatin Organization.
12:30 – 14:00 Lunch Break

Session II - Control of Gene Expression.

Chair - Ulf Pettersson, Uppsala

14:00 – 14:30 Thomas Jenuwein, MPI, Freiburg: Epigenetic Control by Histone Methylation.

14:30 – 15:00 Walter Schaffner, Zürich: Modulation of Transcriptional Activity by Microsatellite Repeat Variation.

15:00 – 15:30 Sabine Loewer, Harvard Medical School: Large Intergenic Non-coding RNAs as Novel Regulators of Reprogramming.

15:30 – 16:00 - Coffee Break

Session III - Environmental Factors Reach the Genome via DNA Methylation.

16:00 – 16:30 Moshe Szyf, McGill Univ., Montreal, Quebec: Early Life Adversity, DNA Methylation and Adult Health.
Tuesday, June 21, 2011

Session IV – Methylation Patterns, *de novo* Methylation and RNA-based Epigenetic Systems

Chair - Uta Francke, Stanford University

09:00 – 09:30 Howard Cedar, Hadassah, Jerusalem: The Regulation of DNA Methylation.

09:30 – 10:00 Boris F. Vanyushin, МГУ, Mockba: DNA Methylation in Plants: Peculiarities and Problems.

10:00 – 10:30 Bernhard Horsthemke, Essen: mRNA-based Cellular Inheritance and the Role of Time in Epigenetic Variation.

10:30 – 11:00 Coffee Break

11:00 – 11:30 Ingrid Grummt, DKFZ, Heidelberg: Triplex Formation between Noncoding RNA and DNA Targets DNMT3B to Regulator Elements.

11:30 - 12:00 Anja Naumann, Erlangen: Critical Chromatin Structure Safeguarding against Methylation Spreading into the Human FMR1 Promoter.

Session V – 5-Hydroxymethylcytosine

12:00 – 12:30 Nathaniel Heintz, Rockefeller University, NYC: 5-Hydroxymethylcytosine, Neurons and Nuclear Function

12:30 – 13:00 Jörn Walter, Saarbrücken: The Role and Dynamics of 5-Hydroxymethylcytosine in Epigenomic Reprogramming
13:00 – 14:30 Lunch Break

Tuesday, June 21, 2011, continued

15:00 Group Photograph

15:00 – 17:30 Guided Tour (W.D.) through Weissenburg: Roman (~90 – 259) and Medieval Towns (1129 - ).

19:30 Symposium Dinner
By invitation
Wednesday, June 22, 2011

Session VI - Epigenetics, Reprogramming, and Disease

Chair – Howie Cedar, Jerusalem

09:00 – 09:30 Rudolf Jaenisch, MIT, Cambridge, MA: Stem Cells, the Molecular Control of Reprogramming and the Promise for Personalized Medicine.

09:30 – 10:00 Andrew Feinberg, Johns Hopkins University, Baltimore: The Epigenetics of Common Human Disease.

10:00 – 10:30 Stefan Beck, University College, London: Towards an Integrated (Epi)genetic Approach to Complex Phenotypes and Common Disease.

10:30 – 11:00 Coffee Break

11:00 – 11:30 Melanie Ehrlich, Tulane Univ., New Orleans, LA.: Normal and Dystrophic Myogenesis: Epigenetics and Gene Expression.

11:30 – 12:00 Wolf Reik, The Babraham Institute, Cambridge, UK: Epigenetic Reprogramming in Mammalian Development.

12:00 – 12:30 Art Petronis, Toronto, Ontario: Epigenomics and Complex Disease.

12:30 – 13:00 Denise Barlow, Wien: Transcription of the Imprinted Airn macro ncRNA is Sufficient for Gene Silencing.

13:00 – 15:00 Lunch Break
**Session VII** – Cancer Epigenetics

Chair – Melanie Ehrlich, Tulane University, New Orleans, LA

15:00 – 15:30 Peter Jones, USC Norris Cancer Center, Los Angeles: The Cancer Epigenome.

15:30 – 16:00 Nicoletta Sacchi, Buffalo, NY: Epigenetic Dysregulation of Gene Networks in Cancer Cells.

16.00 – 16:30 Coffee Break

**Session VIII** - Epigenetics and Viral Latency

Chair – Peter Jones, USC Norris Cancer Center, Los Angeles

16:30 – 17:00 Janos Minarovits, Budapest: Epigenetic Regulation of Viral and Cellular Promoters in EBV-Infected Cells.

17:00 – 17:30 Armin Ensser, Erlangen: Epigenetics of Gammaherpesvirus Genomes.

End of Symposium

Thank you all for your Contributions and Have a Safe Journey Home