

Title and lecturers:

Seminar

# Epigenetics

Dr. Bodo Brückner, Dr. Matthias Schäfer,  
Prof. Dr. Frank Lyko

Time and location:

DKFZ TP3 (INF 580)

Tuesdays

18:15-19:30



First meeting:

**14.10.08, 18:15, DKFZ TP3 (INF 580)**

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## Aims and contents of the seminar:

The seminar will provide insight into all aspects of epigenetic gene regulation. After an introduction into classical epigenetic phenomena, like X-chromosome inactivation and transposon silencing, we will discuss the mechanisms of epigenetic gene regulation. A particular focus will be on the role of epigenetics in the development of cancer.

Experiments that were central to our understanding of epigenetic phenomena will be discussed through presentations of the original scientific articles. Based on the presentations and the discussions a comprehensive view on epigenetics will be achieved. The lecturers will assist the participants in their preparation of the presentations.

## Topics:

### 1) Epigenetic mechanisms

Li, E. Chromatin modification and epigenetic reprogramming in mammalian development. Nat. Rev. Genet. 2002 3:662-673.

### 2) Cancer epigenetics

Feinberg, A.P., and Tycko, B. The history of cancer epigenetics. Nat. Rev. Cancer. 2004 4:143-153.

### 3) Epigenetics and animal cloning

Jaenisch, R. Human cloning – the science and ethics of nuclear transplantation. New Engl. J. Med. 2004 351:2787-2791.