

# network

## enterprise europe

**JENS MAYER**

## **BIOLOGY AND DISEASE-RELEVANCE OF MOBILE ELEMENTS IN THE HUMAN GENOME**

**9 JULY 2014 - 10:30**

SARDEGNA RICERCHE  
Loc. Piscinamanna – Edificio 2 – Pula

**Moderator: Prof. Enzo Tramontano, UniCa**

**Jens Mayer**

Professor Dr. rer. nat.

Head of Independent Research Group – Human Genetics

Department of Human Genetics at the Center for Human and Molecular Biology  
Medical Faculty - Saarland University

The human genome harbors many more sequences derived from mobile elements than actual gene and protein coding sequences. About 45% of the human genome are derived from mobile elements while only about 1.5% are protein-coding. Mobile elements significantly altered the structure of the genome during evolution, and they continue to do so by continuous creation of novel copies, sometimes causing disease by gene mutation. An involvement of mobile elements, among them human genome sequences derived from retroviruses, in various other human diseases is conceivable. Studying high-copy mobile elements, however, poses some experimental challenges. Recent developments and approaches for studying

the biology of human mobile elements will be presented.

Professor Jens Mayer carries out research in the Department of Human Genetics at the Center for Human and Molecular Biology, Saarland University (Germany). The main focus of his research work is the disease-relevance of mobile elements in the human genome and human endogenous retroviruses (HERVs). His expertise in analyzing the human genome, particularly HERV sequences, can assist studies such as the present one that analyses high-copy mobile elements and the involvement of these mobile elements in different human diseases by gene mutation.

Information and registration available at [www.sardegnaricerche.it](http://www.sardegnaricerche.it)