WELCOME

Welcome to the first Spetses Summer School on Chromatin & Transcription

Course poster

The **Spetses Summer School** on epigenetics and transcription addresses the state-of-the-art and recent advances in the chromatin field. It will be an attractive educational and networking opportunity for the next generation of scientists.

To maximize interaction between the participants and the expert scientists, the Summer School comprises lectures, afternoon discussion groups, journal clubs, evening dinner groups and ample social time.

The Summer School is suitable primarily for younger researchers, allowing them to receive expert advice on their research projects, develop new collaborations, and receive guidance on their careers.

Topics:

- Transcriptional regulation in eukaryotes
- Structure and regulation of RNA polymerase
- Histone modifications and histone variants
- Centromeric silencing and VDJ recombination
- Histone chaperones and nucleosome structure
- ATP-dependent chromatin remodeling
- Epigenetics and X-inactivation
- RNA processing
- DNA repair and recombination
- Genome-wide and structural analysis of transcription and chromatin biology

View abstract data

Abstract title	Organization of chromatin in terminally differentiated tissues
Author	Dehghani, Hesam, Ferdowsi University of Mashhad, Mashhad, Iran (P)
Co-author(s)	Bazett-Jones , David, The Hospital for Sick Children and University of Toronto, Toronto, Canada
Keywords	chromatin organization tissue ultrastructure
Presentation Preference	
Audio/Visual Equipment	
Awards	

Abstract text

In this study we report that each individual adult (finally differentiated) tissue has a signature chromatin organization.
However, cells in culture do not demonstrate a remarkable chromatin configuration. By relating to the number of active genes acquired from high-throughput transcriptome analyses, we demonstrate that the final organization of genome in the nuclear chromatin is not determined by the number of active and silenced genes. We also provide evidence for the lattice model of chromatin organization (Dehghani et al., 2005) by demonstrating that chromosome territories are not demarcated by "interchromatin channels" and in fact they are intermingled. Also, we show that transcription of genes is localized to the chromatin fibers regardless of their location within or at the periphery of chromosome territories. These data provide evidence for the potential of spatial organisation of chromatin and sub-nuclear organisation in the regulation of gene activity and cellular differentiation.

Back