

# 23-25 OCTOBER 2019

PRELIMINARY DATE

# NUCLEAR ARCHITECTURE, LIPIDS, AND PHASE SEPARATION

## Abstract

The molecular organization within the cell nucleus determines gene expression, and recent observations revolutionize our understanding of nuclear architecture. In particular, the molecular functions of intra-nuclear lipids involved in RNA polymerase II transcription and modulation of RNA polymerase I activity at multiple levels suggest additional functions of lipids.

The aim of the workshop is to provide insight into state of the art methods and data available about precise localization and metabolism of nuclear lipid-containing structures, as well as to discuss the diverse functional implications of these nuclear molecular assemblies in gene expression. The discussion will include lipid-containing nuclear compartments (nuclear envelope, lipid islets, lipid droplets) as well as regulatory functions of individual lipid molecules.

A special attention will be given to the multidisciplinary approach including light and electron (cryo)-microscopy, lipid chemistry and biophysics, addressing the mechanotransduction and phase separation events in the nucleus with the potential to form novel views on functions of macromolecular assemblies in the nucleus and nucleoplasmic lipids. The workshop will form a discussion platform across specializations and facilitate new interactions and collaborations in this emerging field.

3-day meeting

1 – 4 Work Group  
topics

Organizers:  
Institute of  
Molecular  
Genetics of the  
ASCR in Prague  
and University of  
Zurich



## VENUE

Institute of Molecular  
Genetics of the ASCR, v.v.i.

Václavská 1083, Prague

[https://www.eurocellnet.eu/  
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