



School of Natural Sciences

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Molecular Cell Biology Special Seminar

Beyond Tethering Chromatin to the Nuclear Periphery: Miscellaneous Functions of the Nuclear Membrane Protein Lem2

Date:

Thursday,

09/22/16

By Sigurd Braun, Ph.D.

Biomedical Center Munich

Department of Physiological Chemistry

Ludwig-Maximilians-Universitat Munchen

Time:

1:00 pm

Abstract:

Eukaryotic genomes are partitioned into active and inactive domains, referred to as euchromatin and heterochromatin. This topological and functional organization is crucial for the differentiation into specialized cell types and plays an important role in cellular functions such as chromosome segregation, telomere maintenance, and genome stability.

A key type of transcriptionally silent chromatin conserved from fission yeast to humans is characterized by the covalent histone modification lysine 9 methylation on H3 (H3K9me), which mediates the recruitment of members of the HP1 (heterochromatin protein) family. HP1 proteins are basic constituents of heterochromatin that appear to spread along DNA fiber, thereby creating a docking platform for various heterochromatic factors with individual functions. So far, we have only a poor understanding of how these different factors are specifically recruited and how these multiple interactions are coordinated on the heterochromatic HP1 platform.

Using a combination of genomics, functional genetics and proteomic approaches in the powerful model organism fission yeast (*Schizosaccharomyces pombe*) that harbors the hallmarks of heterochromatin, research in the Braun lab seeks to dissect the regulatory networks that control the heterochromatic platform.

Location:

SE1 270K

For More
Information
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