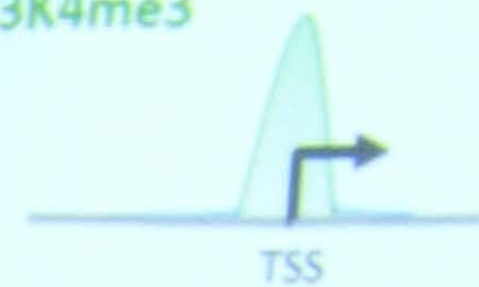


NORWEGIAN CENTER FOR
STEM CELL RESEARCH

Promoter

H3K4me3



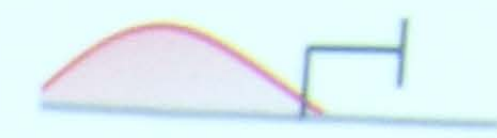
Gene active

H3K27me3



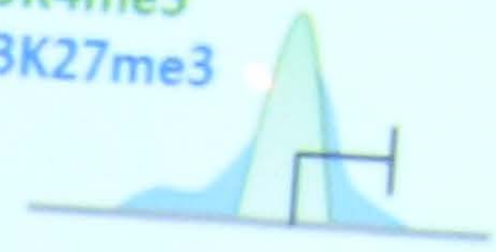
Gene repressed

H3K9me3



H3K4me3

H3K27me3



(Developmental genes)

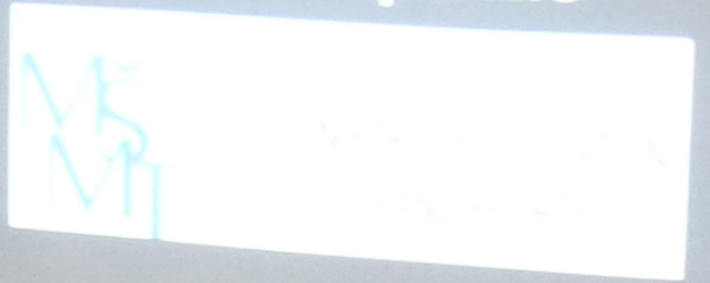


Project No.: 7F14369

Norway



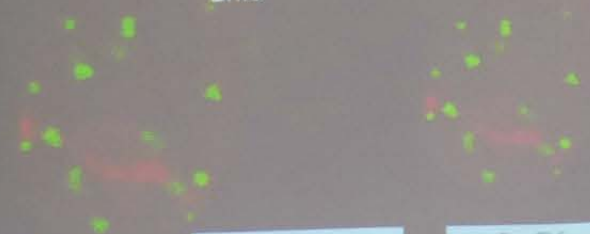
Czech Republic

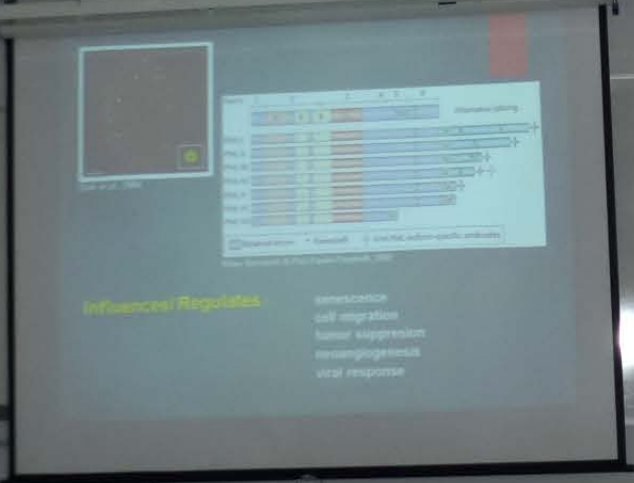


DNA repair and functional and structural properties of 53BP1 protein

Eva Bartková, Soňa Legátová,
Jana Suchánková, Petra Šestáková

Institute of Biophysics, Academy of Sciences of the Czech
Republic, v.v.i.
Brno





Presenter standing at the front of the room, facing the projection screen.

Participant 1: A man with glasses and a grey sweater, sitting at the table and looking towards the screen.

Participant 2: A woman with dark hair, wearing a blue patterned jacket, sitting at the table and looking towards the screen.

Participant 3: A man with glasses, partially visible on the left side of the frame, sitting at the table.

A white mug on the table in the foreground.

A pair of glasses on the table in the foreground.

Notes and papers on the table, including a red folder and a yellow sticky note.

DNA damage and repair

Endogenous and exogenous factors cause DNA lesions:

- Double strand breaks
- Single strand breaks
- Oxidative lesions
- Pyrimidine dimers
- ...

Type of damage and cell cycle phase can influence DNA repair





Research Paper

Autophagic degradation of nuclear

Seung-Eun Park,¹ Yukihiro K. Harauchi,^{1,2} Gladys Berman,^{1,2} S. Nishida¹

Demonstrate the presence of perinuclear autophagosomes/autolysosomes containing nuclear components in nuclear envelopopathies caused by mutations in the genes encoding A-type lamins (LMNA) and emerin (EMD).

Inhibition of autophagy led to the accumulation of nuclear abnormalities and reduced cell viability





