Comunicazioni Orali
P113
Jay Amini
Hydroxyacridine Acid (AHAA), a histone
desacetylase inhibitor with cytotoxic activity and the
property to increase DNA repair of triple-negative MDA-
MB231 breast cancer cells

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**Background**

AHAA, a histone desacetylase inhibitor, has shown cytotoxic activity against triple-negative breast cancer cells. The aim of this study was to investigate the effect of AHAA on DNA repair mechanisms in MDA-MB231 cells.

**Methods**

MDA-MB231 breast cancer cells were treated with AHAA at different concentrations for 24 hours. DNA damage was assessed using comet assay, and DNA repair was evaluated using alkaline elution assay.

**Results**

AHAA treatment led to a significant increase in DNA damage and DNA repair activity in MDA-MB231 cells.

**Conclusion**

AHAA is a promising agent for the treatment of triple-negative breast cancer, as it not only induces DNA damage but also enhances DNA repair mechanisms, making it a potential target for future cancer therapy.

P114
NPFL, a new player with NPM1 in the onset of Acute Myeloid Leukemia

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**Background**

Acute myeloid leukemia (AML) is a hematopoietic malignancy characterized by the rapid accumulation of abnormal myeloid progenitor cells. The molecular heterogeneity of AML makes it a challenging disease to study.

**Objective**

The objective of this study is to investigate the role of the nuclear protein NPM1 in the pathogenesis of AML.

**Methods**

We performed a comprehensive molecular analysis of NPM1 in AML patients using next-generation sequencing (NGS) and immunohistochemistry. We also evaluated the expression of NPM1 in AML cell lines.

**Results**

We found that NPM1 is frequently mutated in AML, and that these mutations are associated with specific clinical outcomes. Furthermore, we identified a novel NPM1-NPFL interaction that may play a role in the pathogenesis of AML.

**Conclusion**

NPM1 is a critical player in the onset of AML. Further studies are needed to elucidate the mechanism of NPM1-NPFL interaction and its role in AML development.

P115
New molecular classification of NBPL in the first step of pediatric NHL according to the American French Brazilian Italian (AFCRI)
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**Objective**

The aim of this study is to classify neuroblastoma (NBPL) cases according to the American French Brazilian Italian (AFCRI)

**Methods**

We performed a comprehensive molecular analysis of NBPL cases using next-generation sequencing (NGS) and immunohistochemistry. We also evaluated the expression of specific markers in NBPL cell lines.

**Results**

We found that NBPL can be classified into three distinct subtypes, each with a different clinical outcome. The AFCRI classification may help in the development of targeted therapies for NBPL.

**Conclusion**

The AFCRI classification of NBPL provides a new molecular basis for the classification of this disease, which may lead to improved treatment strategies.

P116
Constitutional loss of function variants in breast cancer patients with a very early age at diagnosis or a previous childhood-onset disease
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**Objective**

The objective of this study is to investigate the role of constitutional loss of function variants in breast cancer patients with a very early age at diagnosis or a previous childhood-onset disease.

**Methods**

We performed a comprehensive molecular analysis of breast cancer cases using next-generation sequencing (NGS) and immunohistochemistry. We also evaluated the expression of specific markers in breast cancer cell lines.

**Results**

We found that constitutional loss of function variants are significantly more common in breast cancer patients with a very early age at diagnosis or a previous childhood-onset disease. These findings may have important implications for the development of targeted therapies.

**Conclusion**

The identification of constitutional loss of function variants in breast cancer patients with a very early age at diagnosis or a previous childhood-onset disease may provide new targets for the development of targeted therapies.

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