

**STUDY OF THE ABERRANT P15 PROMOTER METHYLATION
IN ADULT AND CHILDHOOD ACUTE LEUKEMIA**

THESIS

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Pathology

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Abstract

Acute leukemia is pathologically defined as mast cell neoplasia or malignancy of immature hematopoietic cells. Unregulated clonal proliferation of hematopoietic stem cells in the bone marrow leads to the production of immature and abnormally functioning cells that fail to differentiate normally but are capable of further division. These leukemia cells accumulate in the marrow, suppressing the proliferation and differentiation of normal hematopoietic cells, leading to the most important manifestations of this disease, namely anemia, haemorrhage and infection.

The role of DNA methylation in tumor genesis has attracted considerable attention recently, as most human neoplasms appear to have an imbalance in DNA methylation patterns, including global loss of DNA methylation or increased levels of methyl transferase enzyme or regional increase in CAN methylation often involving promoters of selected genes.

Keywords: Cell cycle- Genetic aberrations and oncogenesis- Acute leukemia- Methylation specific PCR.