

## A Study of CD180 Expression Profile in Chronic Lymphocytic Leukaemia Cell Line MEC1

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The stability of CD180 surface expression on B chronic lymphocytic leukaemia cells (B-CLL) during the progression through the cell cycle in relevance to cell activation state has been studied in case of actively cycling cells population, using a model system – CLL cell line MEC1. By ethidium bromide staining, we looked at double-stranded DNA content and by immunophenotyping – at surface expression of an activation marker – CD86. MEC1 cell line kinetics has been studied during six consequent days.

According to the obtained results, MEC1 cells activation level increased together with cell cycle stabilisation, as the expression level of CD86 directly correlated with the percentage of cells in G0/G1 ,  $r=0.77$ ,  $p=0.00007$ . Simultaneously, it has been shown a decrease in CD180<sup>+</sup> cells number during the activation as the intensity of CD86 expression negatively correlated with the number of CD180 expressing cells ( $r=-0.57$ ,  $p=0.008$ ). It has been demonstrated for the first time, that the percentage of CD180 expressing cells in proliferating CLL culture is not stable: an increase in CD180<sup>+</sup> cells number can be seen during logarithmic growth, first 72 hours after the cell culture re-seeding. This was confirmed by positive correlation between cell number in G2/M phase and percentage of CD180<sup>+</sup> cells ( $r=0.52$ ,  $p=0.0006$ ).