



Biotech Daily

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BIOPHARMICA

Biopharmica says research to be published in the journal 'Blood' shows that changing the levels of the HLS5 protein can result in pronounced cellular responses such as the expression of red blood cell-specific genes.

Biopharmica has exclusive rights to the putative tumor suppressor gene HLS5 and its associated pathway. Results released in 2006 show that HLS5 has a role in the regulation of gene expression and thus a role in the development of diseases such as cancer, Huntington's disease and AIDS.

The company said work by the Western Australian Institute for Medical Research, Walter and Eliza Hall Institute of Medical Research and the University of Sydney indicated that the potential for modulation of this gene to be of significant clinical relevance.

The article 'HLS5 regulates erythroid differentiation by modulating GATA-1 activity' says that the groups research was focused on the regulatory role of the haemopoietic lineage switch genes, HLS5 and HLS7.

Both are implicated in the switching of erythroid (immature red cell) to myeloid (white cell) lineages.

The article says the HLS5 impedes erythroid maturation by restricting cell proliferation and inhibiting haemoglobin synthesis through suppression of the action of the critical GATA1 transcription factor.

This effect, in conjunction with the already reported influence of HLS7/Mlf1 on erythroid cell morphology, substantiates the co-operative regulatory role of HLS5 and HLS7/Mlf1 in erythroid to myeloid cell lineage switching.

Since the findings indicate that minor changes in HLS5 levels can result in pronounced biological responses there is the potential for modulation of this gene to be of significant clinical relevance.

The development of the different blood cell lineages from the haemopoietic stem cells is of particular interest, the article said.

Co-investigator and Western Australian Institute for Medical Research research fellow Dr Robin Scaife told Biotech Daily that "targeting HLS5 represents a potential anti-cancer strategy".

Biopharmica was untraded at 6.0 cents.