Effect of hnRNP1/2 Modulation on Splicing in Melanoma Cells

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Abstract:

This study aims to conduct an unbiased analysis of the modulation of hnRNPH1/H2 (H1/H2) on overall melanoma RNA expression *in vitro*. Melanomas, due to their molecular heterogeneity and resulting difficulty in treatment, are always in need of new treatment methods. Compounds discovered in the lab have shown to be capable of selectively killing melanoma cells by binding to hnRNPH1/H2, a pair of spliceosomal proteins. Prior RNA analysis, using NanoString, of the WM266-4 melanoma cell line that underwent treatment with h1/h2 siRNA has indicated upregulation of immune-related genes in melanoma cells without the same response occurring in melanocytes. This implies a specificity of response. Additional NanoString analysis has been done to evaluate any changes in the overall RNA expression following H1/H2 treatment, the results of which are elusory as to the extent of modulation.