Figure 2:

1. Two-way ANOVA of gene expression with type of gene and type of skin sample as covariates:

* Significant interaction term (p = ) showing a gene-dependent effect of the type of skin biopsy (there is a difference between tumor and skin samples but only for some genes)

1. To followup on the interaction effect a gene-wise post hoc-Test (Games-Howell-Test) testing for differences between tumor and skin biopsies for each gene separately
   * The gene CDH1 (E-Cadherin) was significantly downregulated ( whereas FN1 (Fibronectin) was significantly upregulated ( in tumor samples

Figure 3:

A two-way ANOVA of (log2) miRNA expression testing miRNA-dependent treatment effects for each cluster did not show any significant interaction effects. However, in Cluster 4 (downregulated miRNAs in tumor samples) irradiation significantly reduced miRNA expression (p = 0.038). Similarly, miRNA expression was significantly downregulated in additional miRNAs (p = 0.022). No post-hoc testing was applied due to lack of significant interaction.

Figure 4:

Neither a general (p = 0.365) nor gene-specific (p = 0.229) irradiation effect were present for mRNA expression in a two-way ANOVA.

Figure 5:

Statistical results in the correlation analysis are depicted within the plots. Correlation was assessed via linear regression. P-values were calculated as interaction term between the respective gene and miRNA