

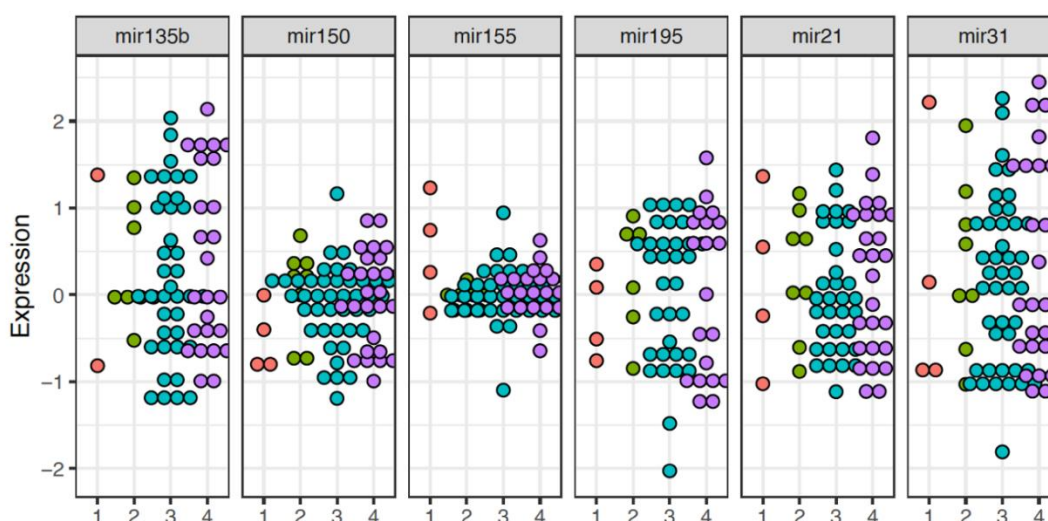
# MicroRNA Expression Profiling Predicts Nodal Status and Disease Recurrence in Patients Treated with Curative Intent for Colorectal Cancer

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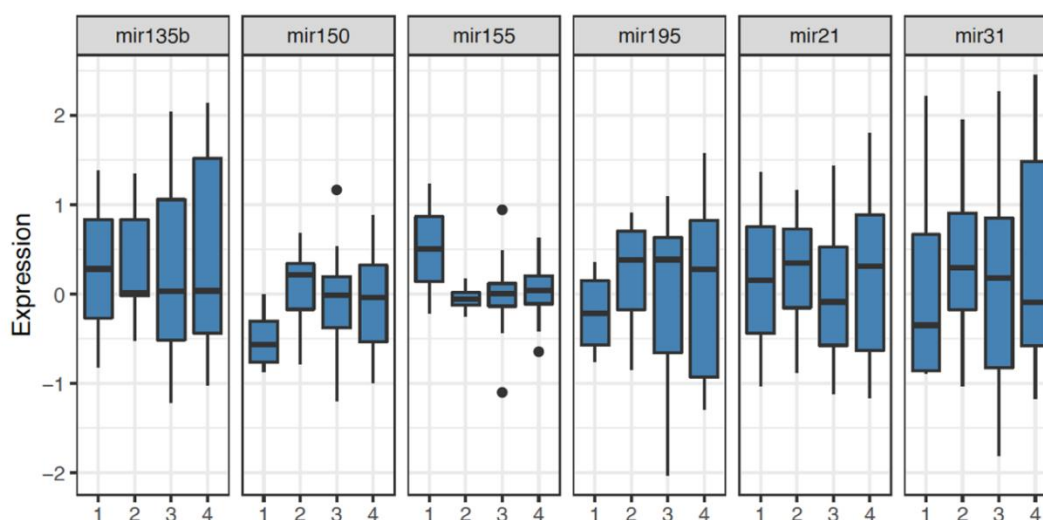
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A

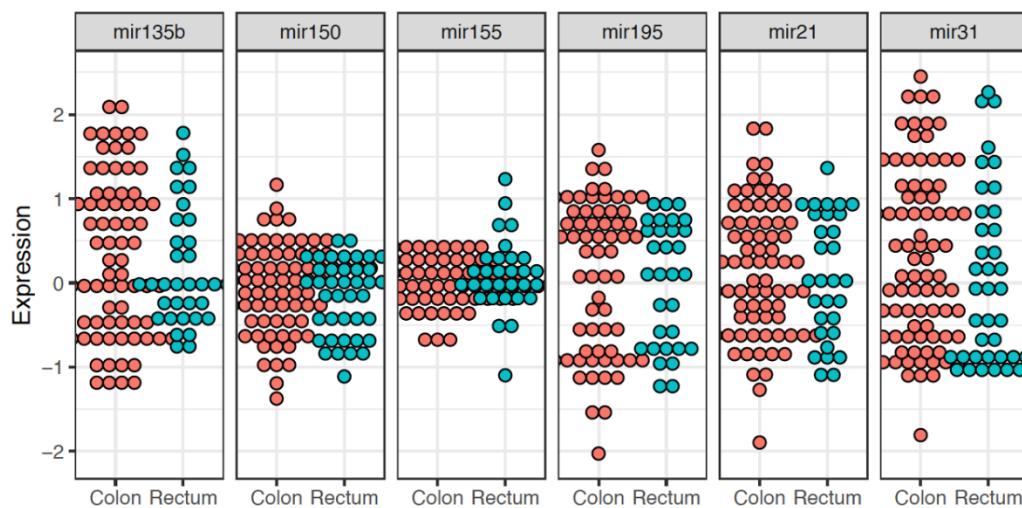


B

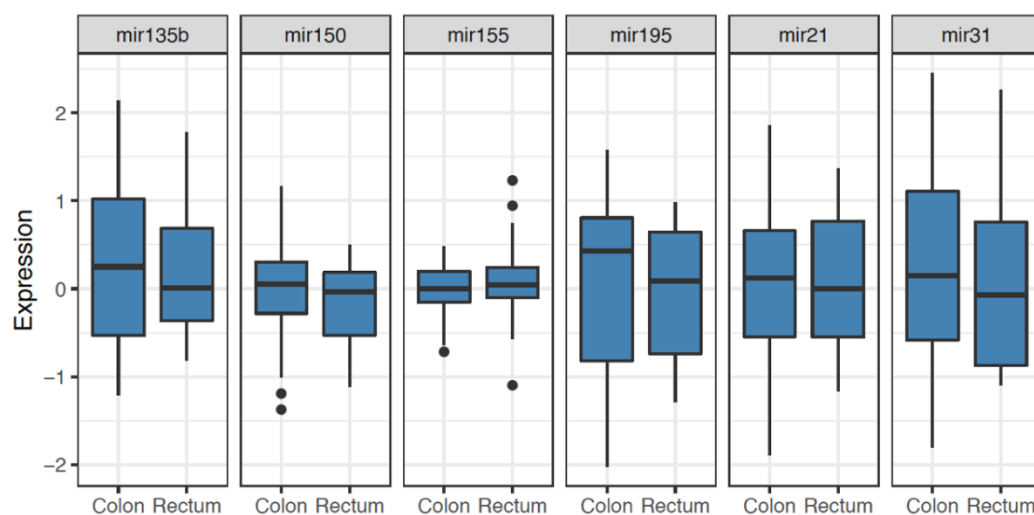


**Figure S1.** Dotplots and Boxplots displaying distribution of the (A) median and (B) mean expression levels of the 6 target miRNAs by tumour stage.

A

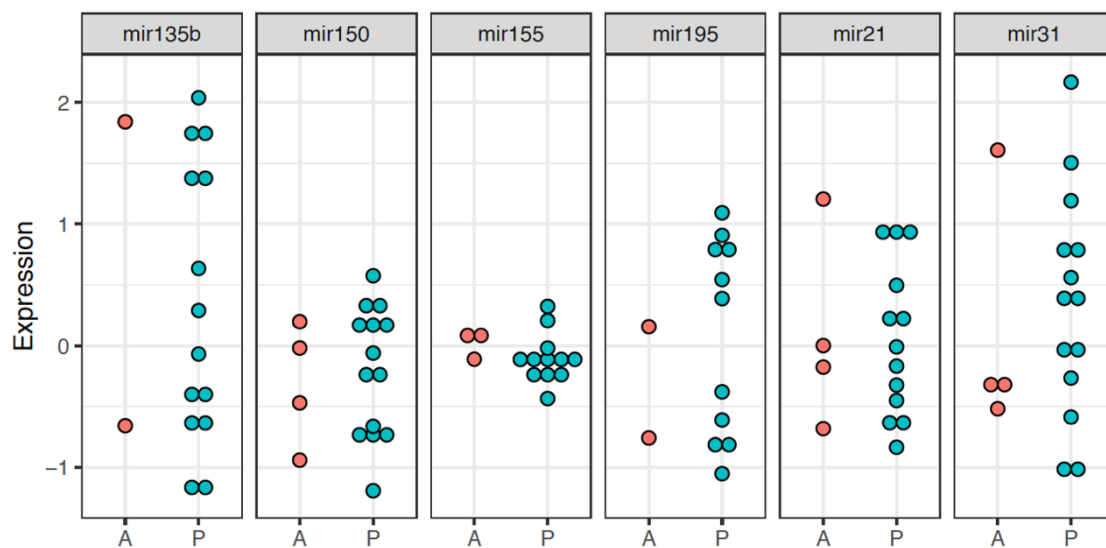


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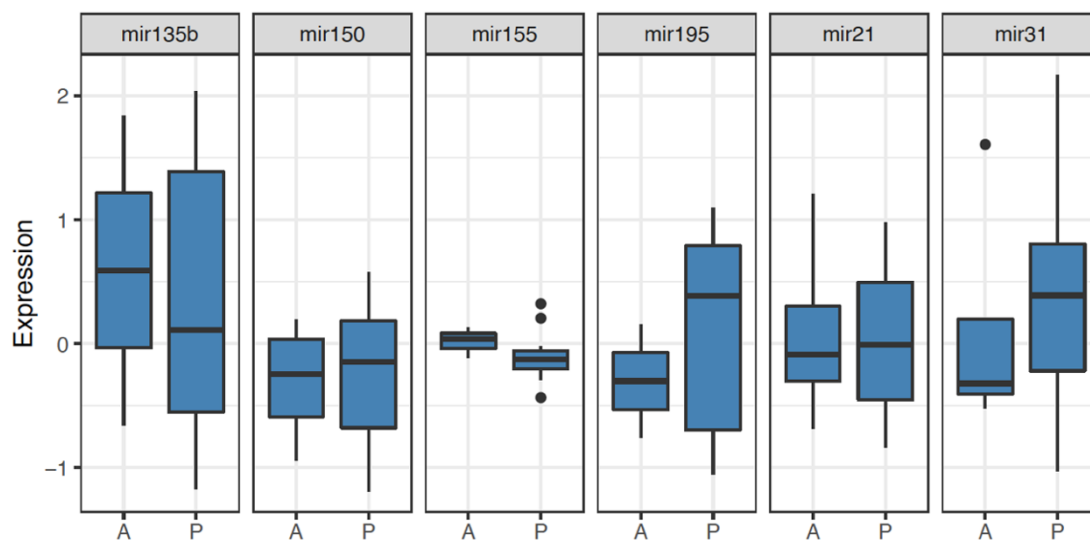


**Figure S2.** Dotplots and Boxplots displaying distribution of the (A) median and (B) mean expression levels of the 6 target miRNAs by site of primary cancer.

A



B



**Figure S3.** Dotplots and Boxplots displaying distribution of the (A) median and (B) mean expression levels of the 6 target miRNAs by the presence of extramural vascular invasion.

Figure 2 displays six scatter plots showing the expression levels of various miRNAs (miR135b, miR150, miR155, miR195, miR21, and miR31) in moderate and poor responders. The y-axis represents 'Expression' ranging from -2 to 1.5. Red circles indicate moderate responders, and teal circles indicate poor responders. The x-axis for each plot is labeled 'Moderate' and 'Poor'.

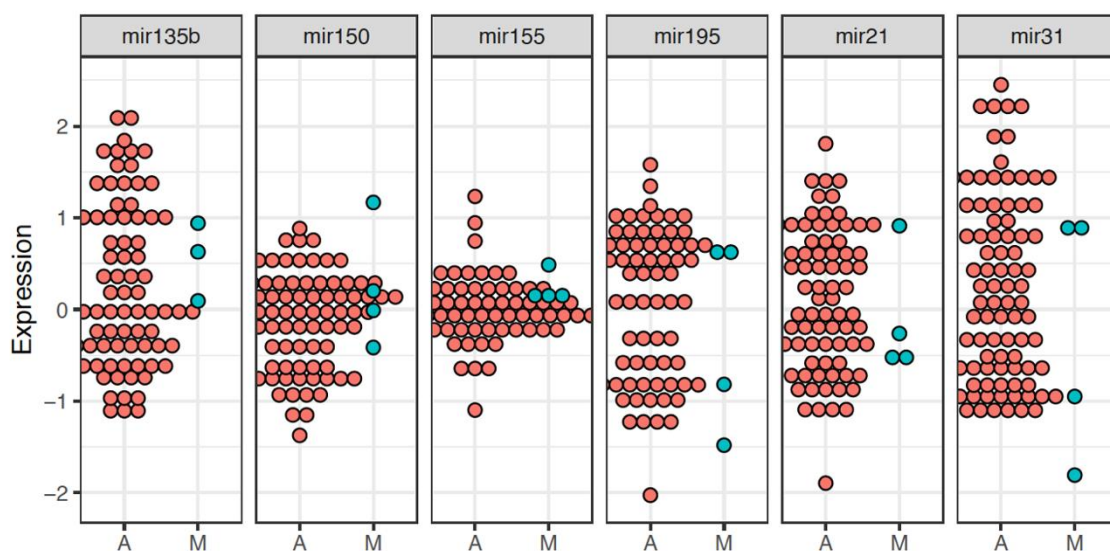
miRNA	Responder Type	Approximate Expression Values				
miR135b	Moderate	-1.0, -0.7, -0.5, -0.4, -0.3, -0.2, -0.1, 0.0, 0.1, 0.2, 0.3, 0.6, 1.1, 1.4				
	Poor	-0.4, 0.0, 0.9				
	miR150	Moderate	-0.7, -0.6, -0.5, -0.4, -0.3, -0.2, -0.1, 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6			
		Poor	-0.4, -0.3, 0.2, 0.3, 0.8, 1.1			
		miR155	Moderate	-0.2, -0.1, 0.0, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1, 1.2		
			Poor	0.2, 0.2, 0.4, 0.4, 0.4, 0.5		
			miR195	Moderate	-0.8, -0.8, -0.8, -0.7, -0.5, -0.4, -0.3, -0.2, -0.1, 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 1.1	
				Poor	-1.5, 0.0, 0.6, 0.7	
				miR21	Moderate	-1.1, -1.1, -0.8, -0.7, -0.6, -0.5, -0.4, -0.3, -0.2, -0.1, 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.9, 1.3, 1.4
					Poor	-0.4, -0.3, -0.3, 1.0
miR31					Moderate	-1.0, -0.9, -0.8, -0.8, -0.7, -0.6, -0.5, -0.4, -0.3, -0.2, -0.1, 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 1.1, 1.4
					Poor	-0.3, -0.4, 0.8, 0.8, 0.8

Figure 2 displays six box plots showing the expression of microRNAs (mir135b, mir150, mir155, mir195, mir21, mir31) in Moderate and Poor groups. The y-axis is labeled 'Expression' and ranges from -1 to 1. Each plot shows the median, quartiles, and range of expression for each group.

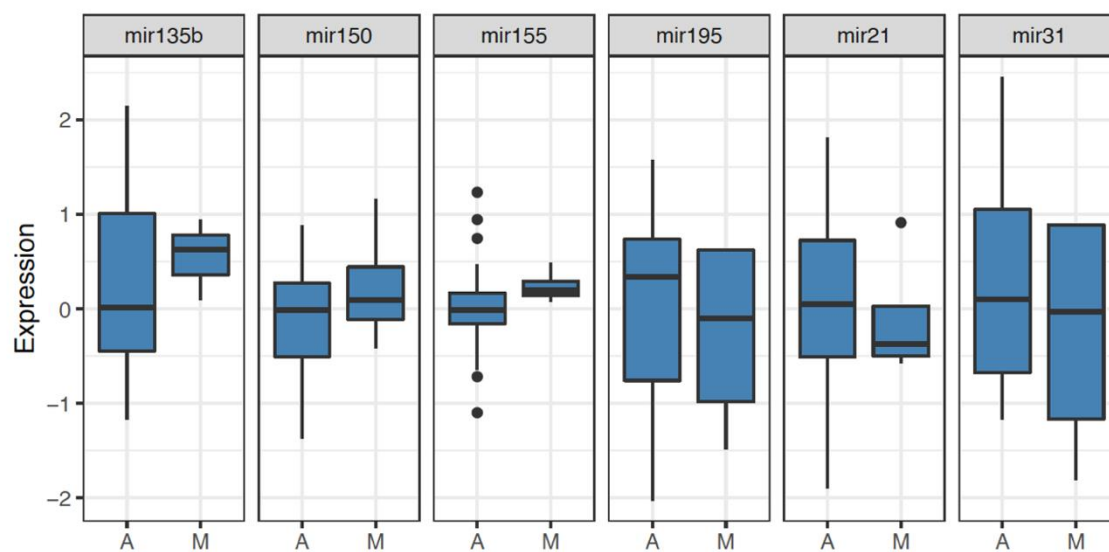
MicroRNA	Group	Median	Q1	Q3	Min	Max	Outliers
mir135b	Moderate	0.0	-0.3	0.6	-1.0	1.4	None
	Poor	-0.1	-0.2	0.5	-0.4	0.9	None
mir150	Moderate	-0.1	-0.5	0.2	-0.8	0.6	None
	Poor	0.2	-0.3	0.8	-0.5	1.2	None
mir155	Moderate	-0.1	-0.2	0.1	-0.2	0.2	1.3
	Poor	0.3	0.2	0.5	0.2	0.6	None
mir195	Moderate	0.2	-0.5	0.7	-0.9	1.1	None
	Poor	0.3	-0.4	0.7	-1.5	0.8	None
mir21	Moderate	0.0	-0.5	0.4	-1.1	1.5	None
	Poor	-0.3	-0.4	0.1	-0.5	0.2	1.1
mir31	Moderate	0.1	-0.2	0.7	-1.0	1.6	None
	Poor	-0.2	-0.4	0.8	-1.6	0.9	None

**Figure S4.** Dotplots and Boxplots displaying distribution of the (A) median and (B) mean expression levels of the 6 target miRNAs by the degree of differentiation.

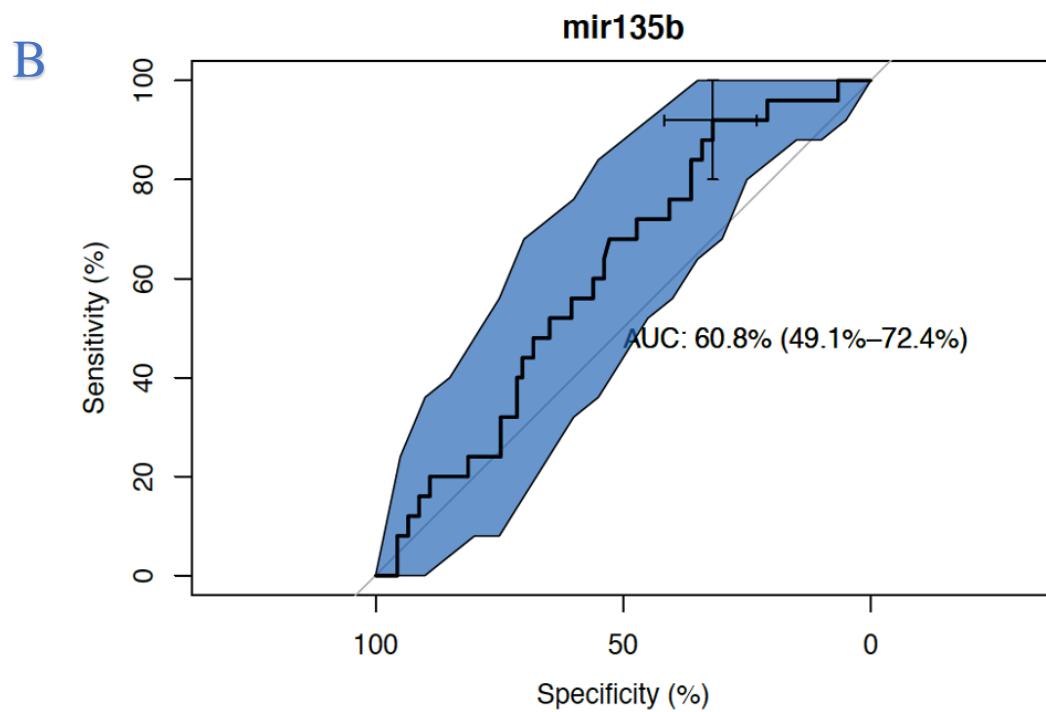
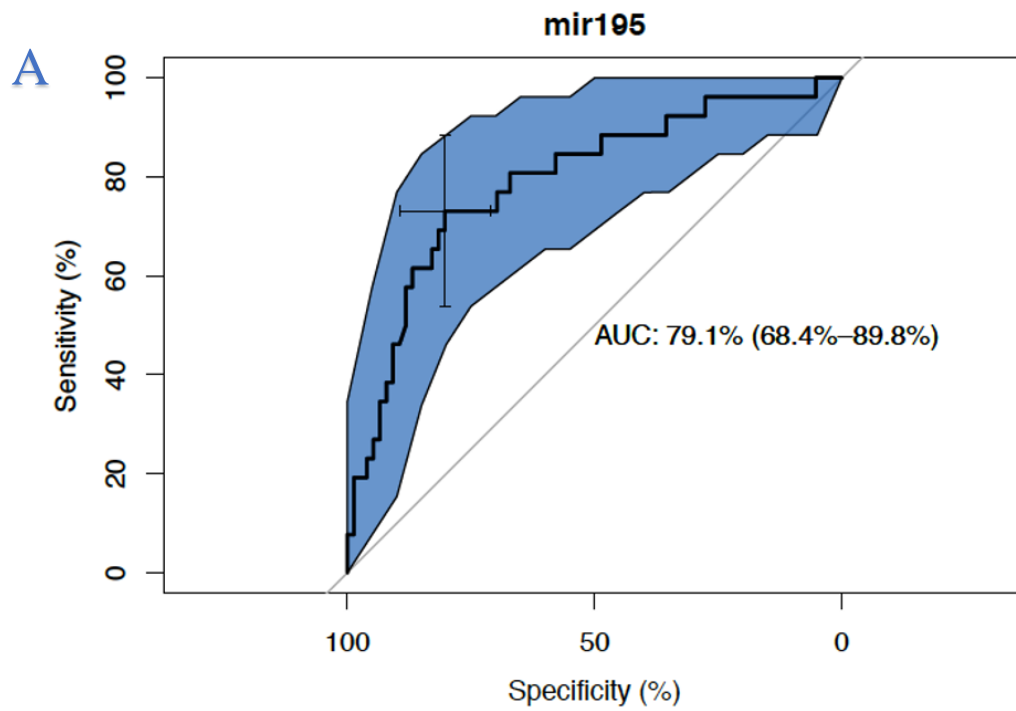
A



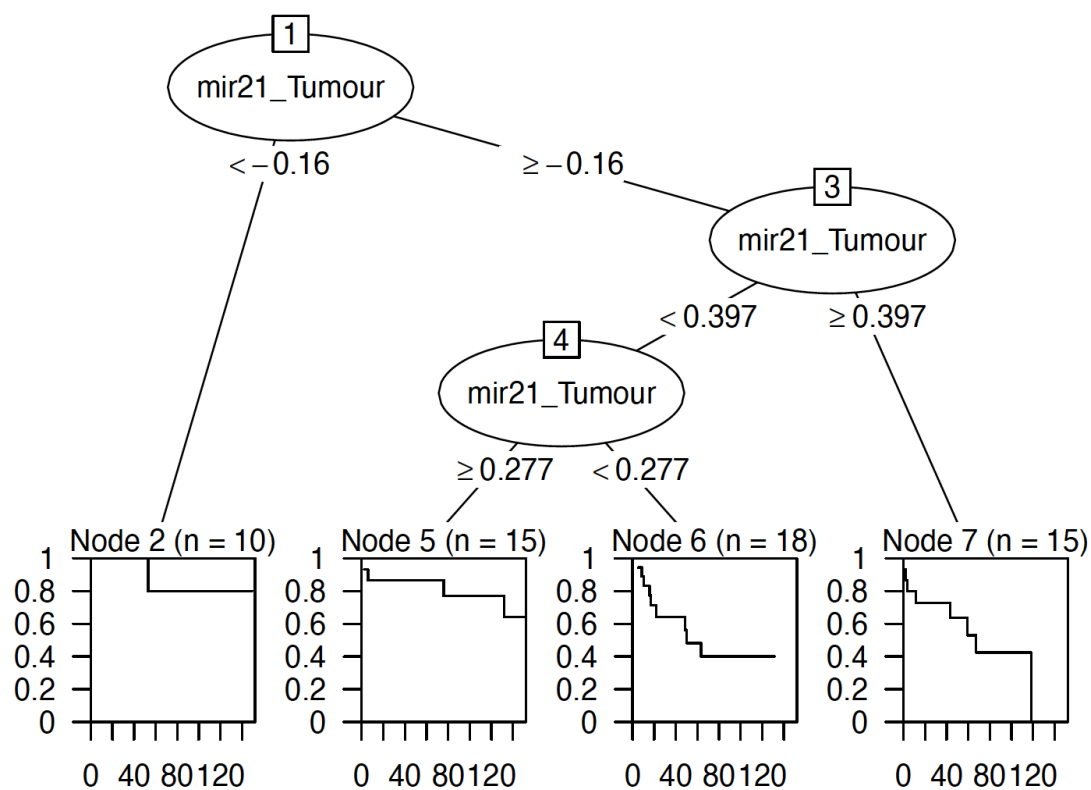
B



**Figure S5.** Dotplots and Boxplots displaying distribution of the (A) median and (B) mean expression levels of the 6 target miRNAs by histological subtype.



**Figure S6.** Receiver operating characteristic curve using logistic regression analysis to illustrate the accuracy of miR-195 (A) and miR-135b (B) in predicting recurrence in colorectal cancer by logistic regression.



**Figure S7.** Regression descriptive classification tree illustrating the clinical utility of miR-21 measurement to differentiate time to overall survival mortality in an analysis of 58 patients treated with curative intent for colorectal carcinoma.

**Table S1.** Binary logistic and Cox-regression analyses to determine predictors in modelling overall survival time.

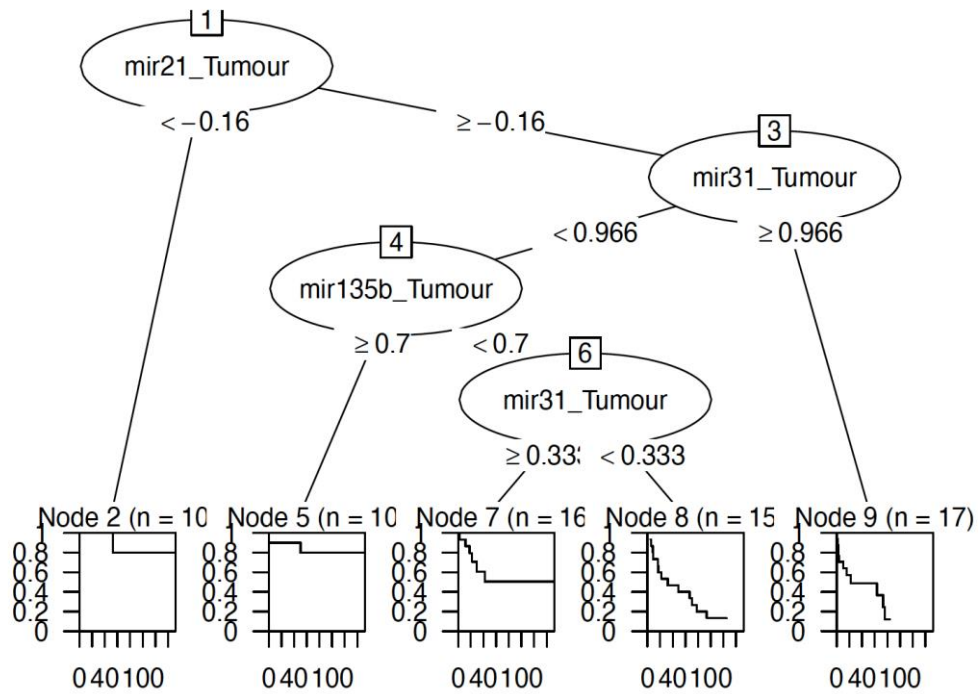
Parameter	Binary Outcome Overall Survival.				Cox Regression—Overall Survival			
	Coefficient (SE) Univariable	P-value	Coefficient (SE) Multivariable	P-value	HR (95% CIs) Univariable	P-value	HR (95% CIs) Multivariable	P-value
<b>miR-21</b>	0.477 (0.492)	0.333	−0.221 (1.007)	0.827	1.610 (0.610–4.230)	0.333	0.802 (0.111–5.772)	0.827
<b>miR-31</b>	0.113 (0.279)	0.685	−0.700 (0.526)	0.184	1.120 (0.650–1.930)	0.685	1.344 (0.360–5.012)	0.184
<b>miR-135b</b>	−0.082 (0.354)	0.816	−0.422 (0.596)	0.478	0.920 (0.460–1.840)	0.816	0.497 (0.177–1.393)	0.478
<b>miR-150</b>	0.390 (0.442)	0.375	0.747 (0.777)	0.337	1.480 (0.620–3.520)	0.375	0.655 (0.204–2.107)	0.337
<b>miR-155</b>	−0.241 (0.546)	0.660	−0.625 (0.965)	0.517	0.790 (0.270–2.290)	0.660	2.110 (0.460–9.672)	0.517
<b>miR-195</b>	0.479 (0.389)	0.219	0.295 (0.672)	0.660	1.610 (0.750–3.460)	0.219	0.535 (0.080–3.545)	0.660

SE; standard error, HR; hazard ratio, CI; confidence interval. \*Denotes statistical significance.

**Table S2.** Binary logistic and Cox-regression analyses to determine predictors in modelling disease-free survival.

Parameter	Binary Outcome Disease-Free Survival				Cox Regression - Disease-Free Survival			
	Coefficient (SE) Univariable	P-value	Coefficient (SE) Multivariable	P-value	HR (95% CIs) Univariable	P-value	HR (95% CIs) Multivariable	P-value
<b>miR-21</b>	0.445 (0.440)	0.312	−0.318 (0.900)	0.724	1.560 (0.660–3.700)	0.312	0.728 (0.125–4.247)	0.724
<b>miR-31</b>	0.143 (0.265)	0.589	−0.485 (0.453)	0.285	1.150 (0.690–1.940)	0.589	2.301 (0.583–9.091)	0.285
<b>miR-135b</b>	−0.240 (0.337)	0.477	−0.258 (0.571)	0.651	0.790 (0.410–1.520)	0.477	0.616 (0.253–1.497)	0.651
<b>miR-150</b>	0.287 (0.453)	0.526	0.182 (0.718)	0.801	1.330 (0.550–3.240)	0.526	0.772 (0.252–2.367)	0.801
<b>miR-155</b>	0.106 (0.522)	0.839	0.591 (0.830)	0.478	1.111 (0.400–3.090)	0.839	0.834 (0.293–4.901)	0.478
<b>miR-195</b>	0.557 (0.357)	0.119	0.834 (0.701)	0.234	1.750 (0.870–3.510)	0.357	0.553 (0.353–9.239)	0.234

SE; standard error, HR; hazard ratio, CI; confidence interval. \*Denotes statistical significance.



**Figure S8.** Regression descriptive classification tree illustrating the clinical utility of miR-21, miR-31 and miR-135b measurement in differentiating disease free survival time in an analysis of 68 patients treated with curative intent for colorectal carcinoma.