CLAIMS

1. A method for determining the likelihood of colorectal cancer (CRC) recurrence in a subject comprising:

measuring the expression level of two or more micro ribonucleic acids (miRNAs) selected from the group consisting of hsa-miR-363*, hsa-miR-1255b, hsa-miR-566, has-miR-1265, hsa-miR-127-5p, hsa-miR-338-5p, hsa-miR-550a*, hsa-miR-588, has-miR-651, hsa-miR-223*, hsa-miR-518b, hsa-miR-629, hsa-miR-885-5p, has-miR-139-3p, hsa-miR-655, hsa-miR-1290, hsa-miR-450b-5p, and hsa-miR-1224-5p in a biological sample comprising CRC tumor cells obtained from said subject,

calculating a recurrence score by a method comprising weighting the expression levels of the miRNAs by contribution to CRC recurrence,

recurrence score = exp(y)/(1 + exp(y)),

wherein y is a formula combined multiple predictors recurrence score, and

determining the likelihood of colorectal cancer recurrence for said subject using the recurrence score.

2. The method of claim 1, wherein the subject is a human.

3. The method of claim 1, wherein the expression levels of the miRNAs are measured by a method comprising (a) reverse transcription of miRNA and a quantitative real-time polymerase chain reaction (RT-PCR) or (b) microarray analysis.

4. The method of claim 1, wherein the measured expression levels are normalized relative to (a) the expression levels of one or more noncoding ribonucleic acids (ncRNAs), (b) total amount of RNA, (c) the expression levels of one or more miRNAs, or (d) the expression levels of one or more 18S rRNAs.

5. The method of claim 1, wherein the measured expression levels are not normalized and raw qPCR Ct results are used in calculating the recurrence score.

6. The method of claim 4, wherein the measured expression levels are normalized relative to the expression levels of one or more noncoding ribonucleic acids (ncRNAs) and the noncoding RNA (ncRNA) is selected from transcripts of RNU6B, RNU44, and RNU48.

7. The method of claim 4, wherein the measured expression levels are normalized relative to the expression levels of ~~has-miR-16~~hsa-miR-16 and/or ~~has-miR-92~~hsa-miR-92.

8. The method of claim 1, wherein the individual contribution of each miRNA expression level measured is weighted separately in the calculating step.

9. The method of claim 1, wherein said biological sample is a fresh sample of a CRC tumor, a frozen sample of a CRC tumor or a paired non-tumoral tissue.

10. The method of claim 1, wherein said biological sample is a sample containing small RNAs.

11. The method of claim 1, further comprising preparing a report comprising the recurrence score and/or the determination of the likelihood of CRC recurrence made using the recurrence score.

~~12. A kit for predicting the recurrence of colorectal cancer in a subject consisting of:~~

~~at least two reverse transcription primers for specifically reverse transcribing at least two miRNAs selected from the group consisting of hsa-miR-363*, hsa-miR-1255b, hsa-miR-566, hsa-miR-1265, hsa-miR-127-5p, hsa-miR-338-5p, hsa-miR-550a*, has-miR-588, hsa-miR-651, hsa-miR-223*, hsa-miR-518b, hsa-miR-629, has-miR-885-5p, hsa-miR-139-3p, hsa-miR-655, hsa-miR-1290, hsa-miR-450b-5p, and hsa-miR-1224-5p into cDNA.~~

~~13. A kit for predicting the recurrence of colorectal cancer in a subject comprising:~~

~~at least two reverse transcription primers for specifically reverse transcribing at least two miRNAs selected from the group consisting of hsa-miR-363*, hsa-miR-1255b, hsa-miR-566, hsa-miR-1265, hsa-miR-127-5p, hsa-miR-338-5p, hsa-miR-550a*, has-miR-588, hsa-miR-651, hsa-miR-223*, hsa-miR-518b, hsa-miR-629, has-miR-885-5p, hsa-miR-139-3p, hsa-miR-655, hsa-miR-1290, hsa-miR-450b-5p, and hsa-miR-1224-5p into cDNA;~~

~~at least two probes that specifically bind to cDNAs reverse transcribed from the miRNAs, wherein the probes are suitable for use in real-time polymerase chain reaction (RT-PCR) for quantifying the miRNAs present; and~~

~~a reverse transcription primer for specifically reverse transcribing at least one noncoding RNA and a probe that specifically binds a cDNA reverse transcribed from the at least one noncoding RNA, wherein the probe is suitable for use in real time polymerase chain reaction (RT-PCR) for quantifying the noncoding RNA present.~~

~~14~~12. A method for determining the likelihood of the recurrence of colorectal cancer in a subject comprising:

providing a sample containing small RNA;

detecting expression of each of the miRNAs of hsa-mir-1224-5p; hsa-mir-518b; hsa-mir-629; hsa-mir-885-5p; hsa-mir-139-3p; hsa-mir-223*; hsa-miR-655; hsa-miR-1290; and hsa-miR-450b-5p; and

calculating the probability that the subject will have a recurrence of colorectal cancer according to recurrence score~~.~~,

recurrence score = exp(y)/(1 + exp(y)),

wherein y is a formula combined multiple predictors recurrence score.

~~15~~13. The method of claim ~~14~~12, wherein said recurrence score is calculated by logistic regression analysis.

~~16~~14. A method for determining the likelihood of the recurrence of colorectal cancer in a subject comprising:

providing a sample containing small RNA;

detecting expression of each of the miRNAs of hsa-mir-1224-5p; hsa-mir-518b; hsa-mir-629; hsa-mir-885-5p; hsa-mir-139-3p; and hsa-mir-223; and

calculating the probability that the subject will have a recurrence of colorectal cancer according to recurrence score

Recurrence score = exp(y)/(1 + exp(y)),

wherein y is a formula combined multiple predictors recurrence score.

~~17~~15. The method of claim ~~16~~14, wherein the recurrence score is determined according to one of the equations shown in Figures 4-60.

~~18~~16. A method for determining the likelihood of the recurrence of colorectal cancer in a subject comprising: