

Review

Stem Cells for Cancer Therapy: Translating the Uncertainties and Possibilities of Stem Cell Properties into Opportunities for Effective Cancer Therapy

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Table S1: Roles of circulating CSC-regulating miRNAs in modulating cancer cell stemness and its linkage to disease progression and prognosis (n=28).

Cancer type	miRNA	Targets	Study model (miRNA source)	Effects on cancer stemness	Effects on disease staging	Effects on cancer therapy	Effects on sur- vival or re- lapse	Ref
Breast cancer	miR-130a-3p	↓ RAB5B	Clinical (Blood exosomes)	↓ Stemness	↓ Staging and metastases	NIA	NIA	[104]
Breast cancer	miR-155	↑ BMI1 ↑ SLUG ↑ SNAIL ↑ SOX9 ↑ EZH2	<i>In vitro</i> (Exosomes)	↑ Stemness	↑ Metastases	↑ Chemoresistance	NIA	[94]
Breast cancer	miR-93-3p miR-105	↓ SFRP1	Clinical (Plasma)	↑ Stemness	↑ Staging and metastases	↑ Chemoresistance	↓ Survival	[103]
Breast cancer	miR-9-5p miR-195-5p miR-203a-3p	↓ ONECUT2	<i>In vitro</i> (Extra- cellular vesicles)	↑ Stemness	NIA	↑ Chemoresistance	NIA	[92]
Colorectal cancer	miR-17-5p	↓ SPOP ↑ PD-L1	<i>In vitro</i> (Exosomes)	↑ Stemness	NIA	NIA	NIA	[122]
Colorectal cancer	miR-19b	↓ FBXW7	<i>In vitro</i> (Exosomes)	↑ Stemness	NIA	↑ Radioresistance	NIA	[93]
Colorectal cancer	miR-146a-5p	↓ NUMB	<i>In vitro</i> (Exosomes)	↑ Stemness	NIA	NIA	NIA	[107]

Colorectal cancer	miR-375-3p	↓ ↓ ↓ ↓ B-catenin Vimentin ZEB1 SNAIL	<i>In vitro</i> (Exosomes)	↓ Stemness		NIA	NIA	NIA	[105]
Colorectal cancer	miR-30a miR-222	↓ MIA3	<i>In vitro</i> (Exosomes)	↑ Stemness	↑	Metastases	NIA	NIA	[108]
Gastric cancer	miR-500a-3p	↓ FBXW7	Clinical (Plasma) and <i>in vitro</i> (Exosomes)	↑ Stemness	↑	Staging	↑ Chemoresistance	↓ Survival	[90]
Glioblastoma	miR-30b-3p	↓ RHOB	Clinical (Serum) and <i>in vitro</i> (Extracellular vesicles)	↑ Stemness	↑	Grading	↑ Chemoresistance	↓ Survival	[111]
Glioblastoma	miR-504	↓ GRB10	<i>In vitro</i> (Extracellular vesicles)	↓ Stemness	↓	Grading	NIA	↑ Survival	[98]
Glioblastoma	miR-603	↓ ↓ IGF1 IGF1R	<i>In vitro</i> (Extracellular vesicles)	↓ Stemness		NIA	↓ Radioresistance	↑ Survival	[100]
Glioblastoma	miR-9-5p miR-124-3p	↓ VIM	<i>In vitro</i> (Extracellular vesicles)	↑ Stemness		NIA	NIA	↓ Survival	[123]
Glioblastoma	miR-16-5p miR-23a-3p miR-144-3p miR-155-5p miR-320e	↓ PTEN	<i>In vitro</i> (Extracellular vesicles)	↑ Stemness	↑	Metastases	↑ Radioresistance	↓ Survival	[91]

	miR-363-3p miR-495-3p miR-520f-3p								
Liver cancer	miR-1246	↓ AXIN2 ↓ GSK-3β	Clinical (Plasma)	↑ Stemness	↑ Metastases	↑ Chemoresistance	↓ Survival	[96]	
Liver cancer	miR-125a miR-125b	↓ CD90	<i>In vitro</i> (Exosomes)	↓ Stemness	↓ Metastases	NIA	↓ Survival	[95]	
Oral squa- mous cell carcinoma	miR-21 miR-34	NIA	<i>In vitro</i> (Exosomes)	↓ Stemness	NIA	NIA	NIA	[116]	
Pancreas	miR-210	↑ mTOR	<i>In vitro</i> (Exosomes)	↑ Stemness	↑ Invasion	↑ Chemoresistance	NIA	[101]	
Lung cancer	miR-210-3p	↓ FGFR1	<i>In vitro</i> (Exosomes)	↑ Stemness	↑ Metastases	NIA	NIA	[97]	
Clear cell re- nal cell carci- noma	miR-19b-3p	↓ PTEN	Clinical (Blood) and <i>in vitro</i> (Ex- osomes)	↑ Stemness	↑ Staging and metastases	NIA	NIA	[113]	
Prostate can- cer	miR-139-5p miR-148a-3p miR-183-5p miR-1307-3p miR-1307-5p miR-7641	↑ miR-139-5p MMP-2, MMP-9, MMP-13, RANKL	<i>In vitro</i> (Exosomes)	↑ Stemness	↑ Metastases	NIA	NIA	[99]	

Multiple myeloma	miR-1305	<p>↓ MDM2</p> <p>↓ IGF1</p> <p>↓ FGF2</p>	Clinical (blood) and <i>in vitro</i> (Exosomes)	<p>↓ Stemness</p>	NIA	NIA	<p>↑ Exosomal miR-1305</p> <p>↓ cellular miR-1305 and led to ↓ survival</p>	[117]
Acute myeloid leukemia	miR-9	<p>↓ HES1</p>	Clinical (Blood)	<p>↑ Stemness</p>	NIA	NIA	NIA	[118]
Acute myeloid leukemia	miR-34c-5p	<p>↓ RAB27B</p>	Clinical (blood) and <i>in vitro</i> (Exosomes)	<p>↓ Stemness</p>	NIA	NIA	<p>↑ Survival</p>	[119]
Myelodysplastic syndrome and leukemia	miR-22	<p>↓ TET2</p>	Clinical (Blood)	<p>↑ Stemness</p>	NIA	NIA	<p>↓ Survival</p>	[120]

Abbreviation: NIA: no information available.