

Supplementary Table 3- Pathways of genes targeted by significantly changed miRNAs in WMI

KEGG pathway	p-value	#genes	#miRNAs
ECM-receptor interaction	7.13E-14	65	67
Adherens junction	2.40E-08	67	72
Arrhythmogenic right ventricular cardiomyopathy (ARVC)	1.41E-07	61	65
Axon guidance	1.41E-07	104	75
Proteoglycans in cancer	1.41E-07	153	79
Focal adhesion	2.40E-06	163	79
TGF-beta signaling pathway	7.10E-06	64	70
Morphine addiction	8.70E-06	72	70
Hippo signaling pathway	1.38E-05	115	77
Endocytosis	2.01E-05	160	84
Renal cell carcinoma	2.05E-05	56	73
N-Glycan biosynthesis	2.25E-05	39	58
ErbB signaling pathway	2.25E-05	72	75
Pathways in cancer	2.25E-05	290	85
PI3K-Akt signaling pathway	4.39E-05	251	83
GABAergic synapse	5.11E-05	65	74
FoxO signaling pathway	6.78E-05	105	73
Wnt signaling pathway	0.00030403	108	78
Bacterial invasion of epithelial cells	0.00030518	62	66
AMPK signaling pathway	0.00030673	97	79
Ras signaling pathway	0.00035157	167	82
Glycosaminoglycan biosynthesis - keratan sulfate	0.00035328	12	24
Glioma	0.00035328	51	70
Fatty acid biosynthesis	0.00038717	8	24
Protein processing in endoplasmic reticulum	0.00040918	122	81
Glutamatergic synapse	0.00055593	86	76
Neurotrophin signaling pathway	0.00066818	94	82
Signaling pathways regulating pluripotency of stem cells	0.00077017	107	77
Lysine degradation	0.00082157	35	62
Prostate cancer	0.00119215	70	75
Mucin type O-Glycan biosynthesis	0.00125524	21	43
mRNA surveillance pathway	0.00148437	70	63
Adrenergic signaling in cardiomyocytes	0.002255	105	74
Choline metabolism in cancer	0.002255	79	79
Chronic myeloid leukemia	0.00323472	57	70
SNARE interactions in vesicular transport	0.00383818	27	53
Rap1 signaling pathway	0.00405732	152	78
Pancreatic cancer	0.00425304	52	67
Gap junction	0.00468179	65	75
Estrogen signaling pathway	0.00468179	73	75
cAMP signaling pathway	0.00496431	144	84
Regulation of actin cytoskeleton	0.00507425	154	77
Prolactin signaling pathway	0.00551293	53	72
MAPK signaling pathway	0.00648632	181	83

Amphetamine addiction	0.00827229	48	64
Synaptic vesicle cycle	0.01106736	46	64
mTOR signaling pathway	0.01106736	48	68
Circadian entrainment	0.01106736	72	73
Thyroid hormone signaling pathway	0.01106736	85	75
Melanoma	0.01472995	55	67
Retrograde endocannabinoid signaling	0.01520997	74	74
Platelet activation	0.0176726	93	73
Long-term depression	0.01821034	44	67
Fatty acid metabolism	0.01983005	31	49
Oxytocin signaling pathway	0.01983005	113	79
Dilated cardiomyopathy	0.02005713	67	61
Nicotine addiction	0.02005713	29	68
Amoebiasis	0.02249234	74	70
Small cell lung cancer	0.0229529	64	65
Cocaine addiction	0.02310221	36	61
Melanogenesis	0.02504181	73	71
Vasopressin-regulated water reabsorption	0.02758365	35	55
Ubiquitin mediated proteolysis	0.03444169	97	79
Endometrial cancer	0.03929779	39	69
Cholinergic synapse	0.04535994	80	76
Circadian rhythm	0.04559598	26	60
p53 signaling pathway	0.04559598	50	62
T cell receptor signaling pathway	0.04766316	76	71
Glycosaminoglycan biosynthesis - chondroitin sulfate / dermatan sulfate	0.04857911	15	27

