

Supplementary Table 1 – Top 10 miRNAs 2 days after initial insult.

Injury-related				
	Model-specific AUC	Permutation p-value	All models combined AUC	Average Expression
AB model				
rno-miR-127-3p	1	3.00E-04	0.94211018	1047.33053
rno-miR-127-5p	1	5.00E-04	0.78244631	20.1356743
rno-miR-133a-5p	1	1.00E-04	0.90849673	723.430163
rno-miR-136-3p	1	3.00E-04	0.77964519	143.918605
rno-miR-208b-3p	1	1.00E-04	0.83099907	42.8186741
rno-miR-22-5p	1	1.00E-04	0.82072829	294.585481
rno-miR-300-3p	1	2.00E-04	0.93277311	130.312483
rno-miR-323-3p	1	0	0.9047619	45.3786727
rno-miR-341	1	1.00E-04	0.94024276	229.029097
rno-miR-667-3p	1	1.00E-04	0.75536881	26.7351611
AMY model				
rno-miR-133a-5p	1	0	0.90662932	723.430163
rno-miR-133b-3p	1	1.00E-04	0.92343604	1679.45615
rno-miR-22-5p	1	1.00E-04	0.80672269	294.585481
rno-miR-378b	1	0	0.84593838	14810.8861
rno-miR-129-5p	0.98666667	3.00E-04	0.910831	85.8523453
rno-miR-29b-3p	0.98666667	1.00E-04	0.67787115	635.063928
rno-miR-300-3p	0.98666667	3.00E-04	0.93277311	130.312483
rno-miR-433-3p	0.98666667	2.00E-04	0.85620915	23.6833476
rno-miR-341	0.97333333	6.00E-04	0.91596639	229.029097
rno-miR-369-3p	0.97333333	4.00E-04	0.87861811	29.2547531
LFP model				
rno-miR-124-3p	1	2.00E-04	0.81512605	23.351748
rno-miR-124-5p	1	2.00E-04	0.83286648	10.8931775
rno-miR-129-1-3p	1	4.00E-04	0.87488329	23.1705683
rno-miR-129-2-3p	1	4.00E-04	0.87488329	23.3433841
rno-miR-129-5p	1	5.00E-04	0.90429505	85.8523453
rno-miR-136-3p	1	2.00E-04	0.78431373	143.918605

rno-miR-222-3p	1	1.00E-04	0.62838469	540.361133
rno-miR-382-5p	1	0	0.81792717	12.1173187
rno-miR-410-3p	1	3.00E-04	0.93464052	174.338332
rno-miR-3085	0.984375	2.00E-04	0.7535014	12.8761805
Li-pilo model				
rno-miR-140-5p	1	4.00E-04	0.77591036	107.555449
rno-miR-323-3p	1	2.00E-04	0.91503268	45.3786727
rno-miR-148a-3p	0.984375	5.00E-04	0.73015873	25384.4302
rno-miR-378b	0.984375	7.00E-04	0.9047619	14810.8861
rno-miR-423-5p	0.984375	5.00E-04	0.70494865	26414.5408
rno-miR-582-3p	0.984375	8.00E-04	0.69561158	311.265213
rno-miR-652-3p	0.96875	0.0016	0.72362278	450.017357
rno-miR-653-5p	0.96875	0.001	0.60504202	20.7192463
rno-miR-129-5p	0.953125	0.0035	0.91456583	85.8523453
rno-miR-341	0.953125	0.0038	0.94677871	229.029097
All models				
rno-miR-127-3p	0.94864613	0	0.94864613	1047.33053
rno-miR-129-5p	0.92110177	0	0.92110177	85.8523453
rno-miR-133a-5p	0.92903828	0	0.92903828	723.430163
rno-miR-133b-3p	0.94771242	0	0.94771242	1679.45615
rno-miR-300-3p	0.94117647	0	0.94117647	130.312483
rno-miR-323-3p	0.92530345	0	0.92530345	45.3786727
rno-miR-341	0.95798319	0	0.95798319	229.029097
rno-miR-369-3p	0.90943044	0	0.90943044	29.2547531
rno-miR-378b	0.90756303	0	0.90756303	14810.8861
rno-miR-410-3p	0.95611578	0	0.95611578	174.338332
Epilepsy-specific				
	Model-specific AUC	Permutation p-value	All models combined AUC	Average Expression
AB model				
rno-miR-30c-5p	0.921875	0.0027	0.5979798	20853.335
rno-miR-130b-3p	0.890625	0.0078	0.61818182	649.416827
rno-miR-148b-5p #	0.890625	0.0072	0.61717172	70.7510647
rno-miR-186-5p #	0.890625	0.0061	0.68484849	6556.73603

rno-miR-19a-5p	0.875	0.009	0.61616162	31.5278852
rno-miR-322-5p	0.875	0.0098	0.66161616	254.779765
rno-miR-542-5p	0.875	0.0104	0.52424242	140.037259
rno-miR-301a-3p #	0.859375	0.0167	0.6969697	2668.3311
rno-miR-301b-3p #	0.859375	0.0169	0.6959596	2589.70931
rno-miR-93-5p #	0.859375	0.0167	0.65050505	4557.14422
AMY model				
rno-miR-19a-3p	0.91071429	0.0062	0.63030303	1275.20887
rno-miR-19b-3p	0.91071429	0.007	0.63030303	2633.21349
rno-miR-455-3p *	0.875	0.0152	0.51818182	12.7096767
rno-miR-487b-3p *	0.875	0.0152	0.66868687	20.3495352
rno-miR-128-1-5p *	0.85714286	0.0171	0.56868687	10.5788751
rno-miR-342-5p	0.85714286	0.0188	0.72525253	132.867704
rno-miR-124-3p	0.83928571	0.0252	0.61868687	23.351748
rno-miR-138-5p *	0.83928571	0.0302	0.5969697	1582.36848
rno-miR-149-5p	0.83928571	0.0294	0.55454546	732.327427
rno-miR-188-5p	0.83928571	0.0304	0.63030303	207.045988
LFP model				
rno-miR-128-3p *	0.88888889	0.0086	0.69191919	16592.6541
rno-miR-345-3p	0.87301587	0.0131	0.68181818	107.874369
rno-miR-130b-5p *	0.84126984	0.0216	0.64545455	62.7760815
rno-miR-1249 *	0.82539683	0.0319	0.67575758	96.6594189
rno-miR-27a-5p #	0.82539683	0.0324	0.63232323	87.505458
rno-miR-503-3p	0.82539683	0.0317	0.66767677	218.268378
rno-let-7d-3p *	0.80952381	0.0433	0.68080808	5727.78587
rno-miR-155-5p	0.79365079	0.0475	0.57373737	328.670985
rno-miR-181a-5p	0.79365079	0.0552	0.45858586	58464.0433
rno-miR-18a-3p *	0.79365079	0.0569	0.67878788	168.772681
Li-pilo model				
rno-miR-330-5p	1	1.00E-04	0.56666667	50.4902116
rno-let-7f-5p *	0.9375	0.0019	0.69191919	44400.3055
rno-miR-130b-5p *	0.9375	0.0019	0.63939394	62.7760815
rno-miR-181c-3p	0.921875	0.0031	0.63939394	554.25084
rno-let-7a-5p *	0.90625	0.0051	0.66565657	74878.4323

rno-miR-331-3p	0.90625	0.0048	0.62323232	32.5440008
rno-miR-872-3p *	0.90625	0.0054	0.72828283	1013.7494
rno-miR-324-5p	0.890625	0.0057	0.62424242	39.7116835
rno-miR-132-3p *	0.859375	0.0168	0.68383838	116.879655
rno-miR-18a-3p	0.859375	0.0132	0.7020202	168.772681
All models				
rno-miR-3085 *	0.72878788	0.0019	0.72878788	12.8761805
rno-miR-487b-3p *	0.71818182	0.003	0.71818182	20.3495351
rno-miR-98-5p *	0.71313131	0.0031	0.71313131	811.288134
rno-miR-872-3p *	0.71111111	0.0027	0.71111111	1013.7494
rno-miR-138-5p *	0.70707071	0.0045	0.70707071	1582.36848
rno-miR-667-3p *	0.69494949	0.008	0.69494949	26.7351611
rno-miR-18a-3p	0.68989899	0.0092	0.68989899	168.772681
rno-let-7f-5p *	0.68585859	0.0085	0.68585859	44400.3055
rno-miR-1224	0.67272727	0.0177	0.67272727	10.8165077
rno-miR-212-3p *	0.67070707	0.0209	0.67070707	51.978956

AUC= Area Under the Curve.

*= positive correlation with seizure frequency, Spearman Rank $p < 0.05$

#=negative correlation with seizure frequency, Spearman Rank $p < 0.05$

Supplementary table 2 – Top 10 isomiRs 2 days after initial insult.

Injury-related				
	Model-specific AUC	Permutation p-value	All models combined AUC	Average Expression
AB model				
miR-127-3p_trim4	1	1.00E-04	0.97759104	121.27483
miR-133c_miRNA	1	2.00E-04	0.88888889	414.553733
miR-133c_trim1	1	2.00E-04	0.85807656	8.75531035
miR-208b-3p_TTG_3prime	1	0	0.87815126	19.1097926
miR-300-3p_trim2	1	1.00E-04	0.92810458	35.3662255
miR-341_T_3prime	1	1.00E-04	0.7665733	17.5888638
miR-378a-3p_trim2	1	2.00E-04	0.8907563	89.2504079
miR-381-3p_CT_3prime	1	3.00E-04	0.89169001	17.347953
miR-410-3p_miRNA	1	3.00E-04	0.9178338	135.099392
miR-410-3p_trim1	1	1.00E-04	0.95331466	27.8516971
AMY model				
miR-133c_miRNA	1	2.00E-04	0.90102708	414.553733
miR-208b-3p_TTG_3prime	1	1.00E-04	0.89402428	19.1097926
miR-378a-3p_trim2	1	0	0.88795518	89.2504079
miR-10a-5p_trim4	1	0	0.8767507	7881.32337
miR-128-3p_trim2	1	0	0.86834734	777.070849
miR-22-3p_trim2	1	0	0.85714286	8096.26991
miR-378a-3p_trim3	1	0	0.84033613	45.6547586
miR-22-3p_trim4	1	0	0.8085901	389.840405
miR-130a-3p_trim2	1	0	0.80392157	609.018976
miR-23a-3p_trim3	1	0	0.72082166	844.615481
LFP model				
miR-127-3p_trim4	1	1.00E-04	0.99719888	121.27483
miR-410-3p_miRNA	1	2.00E-04	0.9309057	135.099392
miR-215_A_3prime	1	2.00E-04	0.9178338	141.762482
miR-455-5p_T_3prime	1	1.00E-04	0.90569561	29.1246843
miR-215_T_3prime	1	0	0.90289449	247.764179
miR-128-3p_trim2	1	2.00E-04	0.86647993	777.070849

miR-215_trim3	1	3.00E-04	0.83099907	69.3291072
miR-182_trim4	1	0	0.74976657	521.544431
miR-139-5p_miRNA	1	3.00E-04	0.72922502	64.7592963
miR-182_trim3	1	0	0.65172736	644.045312
Li-pilo model				
miR-378a-3p_trim2	1	3.00E-04	0.89449113	89.2504079
miR-10a-5p_trim4	1	2.00E-04	0.88141923	7881.32337
miR-652-3p_trim2	1	0	0.80952381	251.995256
miR-152-3p_miRNA	1	2.00E-04	0.8085901	13.7757551
miR-486_trim4	1	0	0.78431373	805.169263
miR-340-5p_trim4	1	5.00E-04	0.74789916	15.8351422
miR-199a-3p_trim1	1	1.00E-04	0.73762838	4692.91484
miR-486_trim1	1	0	0.70494865	248620.627
miR-26b-5p_trim1	1	3.00E-04	0.6162465	300.254929
miR-26b-5p_miRNA	1	4.00E-04	0.56769374	1365.05496
All models				
miR-127-3p_trim4	0.99813259	0	0.99813259	121.27483
miR-410-3p_trim1	0.96732026	0	0.96732026	27.8516971
miR-434-3p_trim1	0.96451914	0	0.96451914	131.708521
miR-300-3p_trim2	0.95331466	0	0.95331466	35.3662255
miR-133a-3p_trim1	0.94957983	0	0.94957983	59.4569027
miR-369-3p_trim1	0.94771242	0	0.94771242	16.9158814
miR-410-3p_miRNA	0.94397759	0	0.94397759	135.099392
miR-434-3p_trim3	0.94211018	0	0.94211018	95.7828047
miR-434-3p_trim4	0.94211018	0	0.94211018	33.1251697
miR-341_trim1	0.93650794	0	0.93650794	13.9011882
Epilepsy-specific				
	Model-specific AUC	Permutation p-value	All models combined AUC	Average Expression
AB model				
miR-186-5p_T_3prime	1	2.00E-04	0.5989899	2350.27377
miR-188-5p_T_3prime	1	1.00E-04	0.51717172	21.3635685
miR-186-5p_TT_3prime	0.953125	0.0015	0.53333333	202.424463
miR-26b-5p_TT_3prime	0.953125	9.00E-04	0.55151515	891.256501

miR-301a-3p_miRNA	0.953125	6.00E-04	0.58989899	2344.18368
miR-186-5p_A_3prime	0.9375	0.0017	0.53333333	25.0308204
miR-26b-5p_T_3prime	0.9375	0.0022	0.53939394	5120.92138
miR-26b-5p_TTT_3prime	0.9375	0.0016	0.57272727	24.5741823
miR-26b-5p_TA_3prime	0.921875	0.0023	0.61616162	526.088375
miR-301a-3p_AT_3prime	0.921875	0.0028	0.57777778	32.6877726
AMY model				
miR-326-3p_T_3prime	0.98214286	8.00E-04	0.64545455	27.3744132
miR-423-3p_A_3prime	0.98214286	3.00E-04	0.55555556	110.857076
miR-24-3p_miRNA	0.96428571	9.00E-04	0.55252525	27.3707584
miR-29a-3p_A_3prime	0.96428571	8.00E-04	0.63333333	206.465733
miR-29c-3p_A_3prime	0.96428571	0.0011	0.62121212	23.2578096
miR-30d-5p_A_3prime	0.96428571	9.00E-04	0.74646465	245.819121
miR-320-3p_AAA_3prime	0.96428571	8.00E-04	0.54848485	40.5826806
miR-146a-5p_T_3prime	0.94642857	0.002	0.58686869	292.412384
miR-30d-5p_T_3prime	0.94642857	0.0024	0.71212121	462.745278
miR-3556a_AAC_5prime	0.94642857	0.0023	0.56565657	1366.78651
LFP model				
miR-19b-3p_trim3	0.9047619	0.0057	0.61111111	27.1985201
miR-1249_miRNA	0.88888889	0.0087	0.6010101	38.62754
miR-328a-3p_AT_3prime	0.88888889	0.0066	0.55858586	35.5455149
let-7c-5p_TA_3prime	0.87301587	0.0123	0.54040404	36.9051564
miR-138-5p_trim1	0.87301587	0.0109	0.62727273	7.73501526
miR-145-5p_T_3prime	0.87301587	0.0136	0.53737374	85.382745
miR-17-1-3p_trim3	0.87301587	0.0098	0.56969697	17.7641355
miR-28-5p_trim1	0.87301587	0.0122	0.56868687	85.157647
miR-30a-5p_A_3prime	0.87301587	0.0121	0.57979798	343.000533
miR-3596c_AA_5prime	0.87301587	0.0124	0.63737374	32.103567
Li-pilo model				
let-7f-5p_miRNA	0.921875	0.003	0.65050505	11510.8645
miR-125a-5p_trim6	0.921875	0.0027	0.48686869	9.18194101
miR-339-5p_miRNA	0.921875	0.0041	0.66262626	16.0408954
miR-3596d_AA_5prime	0.921875	0.0028	0.65454545	12850.944
miR-15b-5p_trim2	0.90625	0.0055	0.66363636	10.9735607

miR-3596a_miRNA	0.90625	0.005	0.62121212	3400.36592
let-7e-5p_miRNA	0.890625	0.0068	0.67070707	42.6455618
miR-101b-3p_trim2	0.890625	0.0073	0.55959596	62.910564
miR-29a-3p_trim3	0.890625	0.0072	0.55050505	112.544766
miR-3596c_A_5prime	0.875	0.0119	0.65454545	65.5548691
All models				
miR-98-5p_trim2	0.75858586	3.00E-04	0.75858586	26.0364305
miR-30c-1-3p_miRNA	0.74343434	5.00E-04	0.74343434	21.7046291
miR-26a-5p_ATT_3prime	0.74090909	6.00E-04	0.74090909	6.21632765
miR-129-5p_miRNA	0.72929293	0.0013	0.72929293	4.92125306
let-7a-5p_trim2	0.72424242	0.0024	0.72424242	167.86567
miR-30d-5p_A_3prime	0.71515152	0.0022	0.71515152	245.819121
miR-22-3p_AA_3prime	0.71111111	0.0043	0.71111111	8.12752188
miR-667-3p_G_3prime	0.71010101	0.0047	0.71010101	4.83780139
let-7b-5p_C_3prime	0.70959596	0.0038	0.70959596	10.9358551
miR-667-3p_miRNA	0.70959596	0.0042	0.70959596	8.9352872

AUC= Area Under the Curve.

Supplementary table 3 – Top 10 miRNAs 9 days after initial insult.

Injury-related				
	Model-specific AUC	Permutation p-value	All models combined AUC	Average Expression
AB model				
rno-miR-184	1	4.00E-04	0.53781513	20.4935483
rno-miR-410-3p	0.96875	0.001	0.67787115	74.37443
rno-miR-431	0.953125	0.0033	0.71055089	21.2184926
rno-miR-341	0.921875	0.0084	0.67040149	110.999695
rno-miR-134-5p	0.90625	0.0111	0.64705882	48.2879088
rno-miR-127-3p	0.890625	0.016	0.60410831	381.455107
rno-miR-181c-5p	0.890625	0.0177	0.50513539	3203.97397
rno-miR-381-3p	0.890625	0.0147	0.57609711	116.366128
rno-miR-541-5p	0.890625	0.0155	0.62464986	26.1361906
rno-miR-615	0.890625	0.0144	0.65452848	21.1921656
AMY model				
rno-miR-144-3p	0.98666667	1.00E-04	0.72362278	1162.42747
rno-miR-671	0.94666667	0.0014	0.41923436	181.298774
rno-miR-99b-5p	0.94666667	0.0014	0.64985994	3980.92395
rno-miR-511-5p	0.92666667	0.0021	0.47619048	16.2278462
rno-miR-100-5p	0.92	0.0024	0.6022409	1785.77329
rno-miR-18a-3p	0.92	0.0041	0.80018674	173.369291
rno-miR-99a-5p	0.92	0.0029	0.59850607	1710.60704
rno-miR-351-5p	0.90666667	0.0052	0.66199813	5630.93434
rno-miR-351-3p	0.9	0.0066	0.59757236	17.0763783
rno-miR-150-3p	0.89333333	0.0062	0.67040149	321.726098
LFP model				
rno-miR-466b-5p	1	3.00E-04	0.62558357	12.0381091
rno-miR-149-5p	0.984375	0.0012	0.56769374	622.191072
rno-miR-425-5p	0.984375	0.0012	0.56862745	2693.19182
rno-miR-184	0.9765625	0.0013	0.47432306	20.4935483
rno-let-7a-1-3p	0.96875	0.0012	0.55835668	229.643204
rno-miR-218a-5p	0.96875	0.0024	0.54061625	32.5175524

rno-miR-340-3p	0.9609375	0.0023	0.61671335	26.360765
rno-let-7c-2-3p	0.953125	0.0023	0.55555556	229.826227
rno-miR-150-3p	0.953125	0.0036	0.65919701	321.726098
rno-miR-34a-5p	0.953125	0.0027	0.55648926	41.8589802
Li-pilo model				
rno-miR-181a-2-3p	1	4.00E-04	0.60690943	96.2988157
rno-miR-10a-5p	0.984375	0.0012	0.66946779	140132.436
rno-miR-10b-5p	0.984375	0.0012	0.66946779	139793.63
rno-miR-144-3p	0.984375	7.00E-04	0.69747899	1162.42747
rno-miR-181a-5p	0.96875	0.0017	0.70774977	52664.3977
rno-miR-187-3p	0.953125	0.0029	0.73202614	43.225028
rno-miR-451-5p	0.953125	0.0034	0.69000934	10582.4833
rno-miR-99b-5p	0.953125	0.0028	0.70588235	3980.92395
rno-miR-144-5p	0.9375	0.0055	0.71521942	905.470168
rno-miR-211-5p	0.921875	0.0076	0.66946779	76.0109505
All models				
rno-miR-222-3p	0.77964519	0	0.77964519	505.178855
rno-miR-369-3p	0.77731092	1.00E-04	0.77731092	6.52825297
rno-miR-3473	0.76330532	9.00E-04	0.76330532	26.1235883
rno-miR-18a-3p	0.75536881	7.00E-04	0.75536881	173.369291
rno-miR-672-5p	0.74276377	0.0011	0.74276377	33.2325169
rno-let-7d-3p	0.7394958	0.0016	0.7394958	5076.2944
rno-miR-1249	0.73295985	0.0024	0.73295985	76.1413201
rno-miR-22-3p	0.73202614	0.0027	0.73202614	244425.548
rno-miR-676	0.71988796	0.0054	0.71988796	989.720717
rno-miR-376c-3p	0.71195145	0.0083	0.71195145	4.17373252
Epilepsy-specific				
	Model-specific AUC	Permutation p-value	All models combined AUC	Average Expression
AB model				
rno-miR-760-3p	0.9375	0.0017	0.59090909	19.2413948
rno-miR-181c-5p	0.859375	0.0148	0.57373737	3203.97397
rno-miR-126a-3p	0.84375	0.0227	0.52020202	3566.38408
rno-miR-20b-5p	0.828125	0.0279	0.66969697	30.1159452

rno-miR-340-5p	0.8125	0.041	0.57272727	1758.94111
rno-miR-34a-5p	0.8125	0.04	0.68787879	41.8589802
rno-miR-872-5p	0.8125	0.0392	0.63434343	1065.05524
rno-miR-17-1-3p	0.796875	0.0511	0.48989899	64.1302648
rno-miR-27b-3p	0.796875	0.0504	0.53131313	34842.3355
rno-miR-93-5p	0.796875	0.0492	0.55959596	4938.93747
AMY model				
rno-miR-101a-5p	0.89285714	0.0099	0.55353535	19.2490613
rno-miR-140-3p	0.89285714	0.0099	0.56262626	19859.5784
rno-miR-615	0.89285714	0.0085	0.61515152	21.1921656
rno-miR-147	0.875	0.0143	0.45454545	263.103833
rno-miR-182	0.85714286	0.0226	0.46363636	2188.16541
rno-miR-27b-3p	0.85714286	0.0207	0.48383838	34842.3355
rno-miR-378b	0.85714286	0.0164	0.54848485	7113.3266
rno-miR-672-5p	0.85714286	0.019	0.52323232	33.2325169
rno-miR-125b-2-3p	0.83928571	0.0294	0.54848485	417.90909
rno-miR-802-5p	0.83928571	0.0315	0.52323232	187.831013
LFP model				
rno-miR-487b-3p	0.92063492	0.0023	0.53636364	10.4436181
rno-let-7d-3p	0.84126984	0.0234	0.63535354	5076.2944
rno-miR-326-3p	0.84126984	0.022	0.48585859	299.673366
rno-miR-328a-3p	0.80952381	0.0415	0.60505051	2894.32684
rno-miR-341	0.80952381	0.0404	0.61919192	110.999695
rno-miR-503-3p	0.80952381	0.0442	0.58686869	177.22023
rno-miR-320-3p	0.79365079	0.0558	0.5979798	4671.15304
rno-miR-6328	0.79365079	0.0562	0.51515152	161.587636
rno-miR-668	0.79365079	0.0521	0.44343434	8.26270531
rno-miR-93-3p	0.79365079	0.0576	0.55757576	76.7266916
Li-pilo model				
rno-miR-145-3p	0.875	0.0101	0.51515152	397.594426
rno-miR-708-3p	0.875	0.0098	0.65252525	17.1701662
rno-miR-19a-5p	0.859375	0.0148	0.47979798	40.7585986
rno-miR-20b-5p	0.859375	0.0137	0.62929293	30.1159452
rno-miR-20a-5p	0.84375	0.0201	0.5989899	514.198944

rno-miR-30d-5p	0.84375	0.0237	0.57070707	78982.3034
rno-miR-219a-5p	0.828125	0.0286	0.5969697	22.9444844
rno-miR-30a-5p	0.828125	0.0315	0.58585859	111182.335
rno-miR-449a-5p	0.828125	0.0283	0.62727273	22.3963586
rno-miR-872-5p	0.828125	0.0314	0.6	1065.05524
All models				
rno-let-7d-3p	0.69090909	0.0099	0.69090909	5076.2944
rno-miR-1249	0.67777778	0.0168	0.67777778	76.1413201
rno-miR-183-3p	0.67676768	0.015	0.67676768	6.38942982
rno-miR-7a-5p	0.67070707	0.0178	0.67070707	16.9207336
rno-miR-28-5p	0.66464646	0.0229	0.66464646	323.056424
rno-miR-34a-5p	0.64646465	0.0459	0.64646465	41.8589802
rno-miR-466c-5p	0.63939394	0.0535	0.63939394	24.4297107
rno-miR-6318	0.63686869	0.0621	0.63686869	4.50237602
rno-miR-1306-5p	0.63535354	0.067	0.63535354	34.3035153
rno-miR-133b-3p	0.63434343	0.0628	0.63434343	169.388396

AUC= Area Under the Curve.

Supplementary table 4 – Top 10 isomiRs 9 days after initial insult.

Injury-related				
	Model-specific AUC	Permutation p-value	All models combined AUC	Average Expression
AB model				
miR-30d-5p_CTG_3prime	0.984375	0.0011	0.5480859	8.5482724
miR-434-3p_trim1	0.984375	8.00E-04	0.57236228	24.259376
miR-341_miRNA	0.96875	0.0022	0.6302521	71.2159698
miR-3596d_CA_5prime	0.96875	0.0023	0.54341737	211.251668
miR-181c-5p_G_3prime	0.9609375	0.0023	0.63772176	16.5906149
miR-186-5p_G_3prime	0.953125	0.0034	0.57983193	36.7808591
miR-221-3p_T_3prime	0.953125	0.0028	0.56769374	93.1480942
miR-30d-5p_CG_3prime	0.953125	0.0034	0.56676004	206.103325
miR-30e-5p_CG_3prime	0.953125	0.0039	0.54435107	272.430416
miR-410-3p_miRNA	0.953125	0.0033	0.63958917	63.0558288
AMY model				
miR-144-3p_A_3prime	1	0	0.77964519	48.3532495
miR-144-5p_trim2	1	0	0.8015873	26.6964752
miR-144-5p_trim3	1	1.00E-04	0.76003735	21.563703
miR-144-3p_miRNA	0.98666667	3.00E-04	0.69934641	461.246467
miR-144-3p_trim1	0.98666667	1.00E-04	0.73015873	154.229578
miR-144-5p_trim1	0.98666667	1.00E-04	0.70681606	33.2713116
miR-101a-3p_C_3prime	0.97333333	5.00E-04	0.64705882	101.76169
miR-144-3p_T_3prime	0.97333333	5.00E-04	0.69981326	13.3981724
miR-18a-3p_G_3prime	0.97333333	1.00E-04	0.81699346	90.1876993
miR-3590-3p_T_3prime	0.97333333	3.00E-04	0.64612512	21.6207679
LFP model				
miR-106b-3p_AA_3prime	1	7.00E-04	0.69094304	13.0655626
miR-144-5p_TT_3prime	1	8.00E-04	0.61811391	9.91249268
miR-191a-5p_trim5	1	3.00E-04	0.76937442	10.711797
miR-24-3p_trim3	1	4.00E-04	0.67693744	11.7923303
miR-187-3p_miRNA	0.984375	0.001	0.69094304	7.12110186
miR-199a-3p_T_5prime	0.984375	9.00E-04	0.48552754	26.4900181

miR-146a-5p_G_3prime	0.96875	0.0015	0.6844071	19.2782542
miR-149-5p_miRNA	0.96875	0.0017	0.63865546	156.732203
miR-16-5p_trim2	0.96875	0.0016	0.60690943	52.7132814
miR-340-3p_trim2	0.96875	0.0028	0.58730159	6.54119906
Li-pilo model				
miR-144-3p_trim1	0.984375	9.00E-04	0.70681606	154.229578
miR-144-3p_trim2	0.984375	6.00E-04	0.71055089	299.855099
miR-10a-5p_trim3	0.96875	0.0018	0.72268908	973.554623
miR-10b-5p_trim2	0.96875	9.00E-04	0.53781513	29.8816589
miR-144-5p_trim2	0.96875	0.0015	0.79878618	26.6964752
miR-146a-5p_C_5prime	0.96875	0.001	0.70214753	154.237339
miR-144-3p_A_3prime	0.953125	0.0026	0.77030812	48.3532495
miR-451-5p_trim3	0.953125	0.0027	0.72082166	83.9260535
miR-532-5p_trim3	0.953125	0.0029	0.50606909	11.1453272
miR-99b-5p_trim3	0.953125	0.0032	0.69187675	86.2639491
All models				
miR-18a-3p_G_3prime	0.82586368	0	0.82586368	90.1876993
miR-144-5p_trim2	0.79225023	2.00E-04	0.79225023	26.6964752
miR-30e-5p_AT_3prime	0.7875817	3.00E-04	0.7875817	6.96256229
miR-1249_trim2	0.78664799	3.00E-04	0.78664799	6.70179512
miR-22-3p_TG_3prime	0.78151261	1.00E-04	0.78151261	11.0599278
miR-30a-5p_AT_3prime	0.77917834	4.00E-04	0.77917834	7.57315007
miR-99b-3p_TT_3prime	0.76937442	5.00E-04	0.76937442	3.94122821
miR-22-3p_TGG_3prime	0.7665733	7.00E-04	0.7665733	7.35013137
miR-3596a_TT_5prime	0.7665733	4.00E-04	0.7665733	15.2750228
miR-676_trim2	0.76283847	6.00E-04	0.76283847	201.887011
Epilepsy-specific				
	Model-specific AUC	Permutation p-value	All models combined AUC	Average Expression
AB model				
miR-130b-5p_trim2	0.90625	0.0058	0.5020202	15.4164519
miR-877_GA_3prime	0.890625	0.0066	0.57575758	48.8227127
miR-191a-5p_A_3prime	0.875	0.0127	0.51919192	1922.36896
miR-328a-3p_AA_3prime	0.875	0.0121	0.62020202	35.8775602

miR-342-3p_C_3prime	0.875	0.0107	0.54949495	180.485542
miR-320-3p_GA_3prime	0.859375	0.0146	0.61010101	50.3389048
miR-151-3p_TTA_3prime	0.84375	0.0212	0.5979798	5.96464296
miR-92a-3p_AAA_3prime	0.84375	0.0223	0.57272727	64.93866
miR-191a-5p_trim1	0.828125	0.0269	0.46565657	2481.425
miR-328a-3p_T_3prime	0.828125	0.0306	0.55959596	647.886342
AMY model				
miR-98-5p_trim4	0.98214286	6.00E-04	0.49494949	12.8077539
let-7i-5p_trim4	0.94642857	0.002	0.54040404	384.556598
miR-16-3p_miRNA	0.94642857	0.0026	0.54191919	16.2959473
let-7f-5p_trim3	0.92857143	0.004	0.66060606	47.1064212
let-7d-5p_C_3prime	0.91071429	0.0055	0.60808081	17.478324
miR-223-5p_trim1	0.91071429	0.0073	0.66464646	14.182072
miR-6328_CT_3prime	0.91071429	0.0049	0.54646465	65.5122907
miR-191a-5p_C_3prime	0.89285714	0.0075	0.59191919	14.3102751
miR-20a-5p_trim2	0.89285714	0.0078	0.65757576	31.7926896
miR-26b-5p_trim3	0.875	0.0145	0.57373737	10.9020244
LFP model				
miR-24-3p_T_3prime	0.92063492	0.0046	0.65151515	403.389776
miR-106b-5p_trim2	0.88888889	0.0073	0.59191919	17.2134988
miR-146a-5p_A_3prime	0.87301587	0.0113	0.63131313	259.298211
miR-24-3p_trim1	0.85714286	0.017	0.59393939	97.890957
miR-101b-3p_trim3	0.84126984	0.0235	0.64848485	14.6388814
miR-122b_A_5prime	0.84126984	0.0196	0.64191919	331.057844
miR-16-3p_miRNA	0.82539683	0.0313	0.48434343	16.2959473
miR-181a-5p_trim5	0.82539683	0.0283	0.50707071	302.030965
miR-24-3p_A_3prime	0.82539683	0.0295	0.62626263	50.5339251
miR-3473_trim4	0.82539683	0.0326	0.59393939	8.26414433
Li-pilo model				
miR-3556a_TAC_5prime	0.890625	0.0062	0.58282828	18.9163883
miR-100-5p_trim2	0.84375	0.0208	0.55757576	95.7715856
miR-199a-3p_T_3prime	0.84375	0.0243	0.53030303	129.815577
miR-28-3p_trim3	0.84375	0.0208	0.67272727	28.2035107
miR-351-5p_trim6	0.84375	0.0225	0.47171717	21.1583958

miR-429_miRNA	0.84375	0.0213	0.58888889	189.586981
miR-92a-3p_AA_3prime	0.84375	0.0178	0.54040404	102.191856
miR-27b-5p_trim2	0.828125	0.0243	0.56363636	30.4769544
miR-30d-5p_TT_3prime	0.8125	0.0358	0.67020202	13.076932
miR-99a-5p_trim2	0.8125	0.0382	0.46666667	121.26552
All models				
miR-1249_miRNA	0.72121212	0.0027	0.72121212	29.0652036
miR-328a-3p_TA_3prime	0.71363636	0.0024	0.71363636	19.3518094
miR-27a-5p_AG_3prime	0.71010101	0.0043	0.71010101	6.06290655
miR-28-3p_trim3	0.69090909	0.0093	0.69090909	28.2035107
let-7d-3p_trim2	0.68838384	0.0099	0.68838384	107.657428
miR-188-5p_CT_3prime	0.68434343	0.013	0.68434343	28.796926
miR-145-5p_trim2	0.68282828	0.0099	0.68282828	12.4489497
let-7d-3p_miRNA	0.67979798	0.0137	0.67979798	3395.16296
miR-320-3p_T_3prime	0.67777778	0.0132	0.67777778	446.736478
miR-122-5p_trim1	0.67676768	0.017	0.67676768	226.466662

AUC= Area Under the Curve.