

**Supplementary Table 6:** The table lists each miR (regulating a gene network termed the regulon) and the Intensive Care Unit Acquired Weakness (ICUAW)-relevant co-expression gene modules having significant enrichment for genes within the regulon (Fisher's exact test hypergeometric p-value).

microRNA	ICUAW-relevant modules (hypergeometric p-value)
hsa-miR-1321	M1(7.53e-35), M2(2.31e-07), M3(6.68e-07), M4(1.11e-07)
hsa-miR-206	M2(8.3e-05), M11(2.82e-05)
hsa-miR-23a-3p	M1(2.62e-26), M2(6.08e-49), M3(1.04e-05)
hsa-miR-29a-3p	M1(5.98e-05), M2(3.08e-07), M3(5.53e-05), M4(7.95e-20), M7(1.2e-06)
hsa-miR-29b-3p	M1(0.000305), M2(2.17e-15), M3(1.8e-05), M4(2.61e-27), M7(3.28e-06)
hsa-miR-3124-3p	M2(0.000721)
hsa-miR-3133	M2(6.66e-06), M4(3e-08)
hsa-miR-3136-3p	M1(1.98e-22), M2(1.7e-12), M3(0.000547), M4(2.27e-09)
hsa-miR-3175	M1(3.94e-14), M2(8.96e-23), M3(7.18e-08), M4(1.34e-17)
hsa-miR-3611	M4(0.000885)
hsa-miR-3622a-3p	M1(1.82e-06), M2(1.71e-16), M3(2.74e-07), M4(4.84e-32)
hsa-miR-424-3p	M1(7.43e-34), M2(5.53e-40), M3(1.49e-10), M4(3.41e-07), M17(0.000118)
hsa-miR-424-5p	M1(1.33e-15), M2(6.53e-43), M3(1.23e-09), M4(1.77e-14), M7(0.000775)
hsa-miR-4488	M1(8.45e-06), M3(0.000495), M6(6.44e-07), M11(3.41e-08)
hsa-miR-4516	M1(4.05e-06), M2(4.5e-13), M3(6.37e-06), M4(1.26e-09)
hsa-miR-4530	M4(0.000657)
hsa-miR-4536-3p	M1(2.27e-17), M3(4.29e-06), M4(1.38e-22)
hsa-miR-4701-5p	M4(5.13e-06)
hsa-miR-4732-3p	M1(0.000415)
hsa-miR-4764-3p	M1(6.15e-05), M3(0.000504), M4(1.05e-11)
hsa-miR-4780	M1(2.49e-33), M2(4.79e-45), M3(1.86e-08), M4(1.18e-07)
hsa-miR-4795-5p	M1(6.23e-29), M2(1.61e-17), M3(2.1e-05), M4(5.32e-22)
hsa-miR-4800-3p	M4(2.22e-06)
hsa-miR-5007-3p	M4(1.16e-05)
hsa-miR-502-3p	M1(5.49e-15), M2(3.53e-37), M3(5.03e-08)
hsa-miR-548as-3p	M4(0.00082)
hsa-miR-551a	M2(1.35e-11), M4(2.26e-06)
hsa-miR-5704	M1(2.43e-05), M3(0.000231), M4(6.76e-10)
hsa-miR-574-3p	M1(2.03e-41), M2(4.27e-17), M3(4.93e-10), M4(2.45e-33)
hsa-miR-589-5p	M4(1.06e-23), M13(4.68e-05)
hsa-miR-597	M4(2.29e-07)
hsa-miR-600	M1(1.08e-10), M3(4.53e-07), M4(6.47e-53), M13(7.34e-05)
hsa-miR-638	M1(6.37e-20), M2(3.45e-24), M3(3.44e-05), M4(1.69e-08)
hsa-miR-660-3p	M4(0.000152)
hsa-miR-663a	M1(2.62e-49), M2(1.11e-28), M3(3.29e-06)
hsa-miR-744-5p	M6(9.26e-06)