

Participation of microRNAs in human interactome: extraction of microRNA-microRNA regulations

Debarka Sengupta and Sanghamitra Bandyopadhyay

1. Non trivial clusters:

Module no	Molecules
55	hsa-mir-554
55	NM_032638
54	hsa-mir-331-3p
54	hsa-mir-342-3p
54	hsa-mir-362-5p
54	hsa-mir-501-5p
54	hsa-mir-502-5p
54	hsa-mir-623
54	hsa-mir-649
54	NM_001003700
54	NM_001168344
52	hsa-mir-483-5p
52	hsa-mir-542-5p
52	hsa-mir-585
52	hsa-mir-611
52	hsa-mir-615-5p
52	hsa-mir-886-5p
52	hsa-mir-937
51	hsa-mir-1237
51	hsa-mir-450b-3p
51	hsa-mir-486-5p
51	hsa-mir-516a-3p
51	hsa-mir-638
51	hsa-mir-769-3p
50	hsa-mir-1202
50	hsa-mir-1324
50	hsa-mir-1469
50	hsa-mir-146b
50	hsa-mir-1825
50	hsa-mir-187
50	hsa-mir-30a
50	hsa-mir-495
50	hsa-mir-605
50	hsa-mir-888

50	hsa-mir-890
50	hsa-mir-891b
50	hsa-mir-892a
50	hsa-mir-892b
49	hsa-mir-1267
49	hsa-mir-1294
49	hsa-mir-548c
48	hsa-mir-1304
48	hsa-mir-1537
46	hsa-mir-1263
46	hsa-mir-337
46	hsa-mir-493
46	hsa-mir-665
46	hsa-mir-920
46	NM_014564
46	NM_178138
45	NM_000399
45	NM_001114123
45	NM_001136178
45	NM_001136179
43	hsa-mir-139-3p
43	hsa-mir-199b-5p
43	hsa-mir-330-5p
43	hsa-mir-331-5p
43	hsa-mir-379
43	hsa-mir-383
43	hsa-mir-455-5p
43	hsa-mir-485-5p
43	hsa-mir-490-5p
43	hsa-mir-571
43	hsa-mir-572
43	hsa-mir-575
43	hsa-mir-651
43	hsa-mir-767-3p
43	hsa-mir-874
43	hsa-mir-875-3p
43	hsa-mir-886-3p
43	hsa-mir-921
42	hsa-mir-491
42	hsa-mir-616
42	NM_003194
40	hsa-mir-1287
40	hsa-mir-150
40	hsa-mir-339
40	hsa-mir-574
40	hsa-mir-590
40	hsa-mir-711
40	NM_178426

39	NM_001572
39	NM_001668
39	NM_004029
39	NM_178427
38	hsa-mir-1180
38	hsa-mir-210
38	hsa-mir-2116
38	hsa-mir-215
38	hsa-mir-30b
38	hsa-mir-340
38	hsa-mir-34a
38	hsa-mir-498
38	hsa-mir-510
38	hsa-mir-518e
38	hsa-mir-518f
38	hsa-mir-520b
38	hsa-mir-523
38	hsa-mir-525
38	hsa-mir-599
38	hsa-mir-873
38	hsa-mir-885
38	hsa-mir-942
38	NM_016734
34	hsa-mir-101
34	hsa-mir-106a
34	hsa-mir-1181
34	hsa-mir-1200
34	hsa-mir-181c
34	hsa-mir-181d
34	hsa-mir-18b
34	hsa-mir-204
34	hsa-mir-20b
34	hsa-mir-26b
34	hsa-mir-363
34	hsa-mir-610
34	hsa-mir-922
34	hsa-mir-936
34	NM_003403
33	hsa-mir-371-3p
33	NM_003422
33	NM_198055
32	hsa-mir-1179
32	hsa-mir-1231
32	hsa-mir-146a
32	hsa-mir-1977
32	hsa-mir-561
32	NM_005194
31	hsa-mir-125a-5p

31	hsa-mir-325
31	hsa-mir-339-3p
31	hsa-mir-941
30	hsa-mir-1252
30	hsa-mir-1275
30	hsa-mir-192
30	hsa-mir-194
30	hsa-mir-197
30	hsa-mir-199b
30	hsa-mir-519b
30	hsa-mir-550
30	hsa-mir-609
30	NM_001003698
30	NM_001003699
28	hsa-mir-127
28	hsa-mir-136
28	hsa-mir-300
28	hsa-mir-376a
28	hsa-mir-376b
28	hsa-mir-376c
28	hsa-mir-431
28	hsa-mir-432
28	hsa-mir-433
28	hsa-mir-596
28	hsa-mir-654
28	NM_001002295
28	NM_002051
28	NM_002382
28	NM_005037
28	NM_005080
28	NM_138711
28	NM_138712
28	NM_145112
28	NM_145113
27	NM_000280
27	NM_001604
27	NM_005375
26	hsa-mir-1272
26	NM_012448
24	hsa-mir-455-3p
24	hsa-mir-576-5p
24	hsa-mir-876-5p
23	hsa-mir-371-5p
23	hsa-mir-509-3p
23	hsa-mir-618
22	hsa-mir-130b
22	hsa-mir-154
22	hsa-mir-301b

22	hsa-mir-369
22	hsa-mir-371
22	hsa-mir-377
22	hsa-mir-409
22	hsa-mir-410
22	hsa-mir-412
22	hsa-mir-496
22	hsa-mir-541
22	hsa-mir-656
22	hsa-mir-938
22	NM_000278
22	NM_003987
22	NM_003988
22	NM_003989
22	NM_003990
21	hsa-mir-1295
21	hsa-mir-138
21	hsa-mir-148b
21	hsa-mir-202
21	hsa-mir-320a
21	hsa-mir-448
21	hsa-mir-449a
21	hsa-mir-449b
21	hsa-mir-449c
21	hsa-mir-490
21	hsa-mir-581
21	hsa-mir-606
21	hsa-mir-626
21	hsa-mir-640
21	hsa-mir-659
21	hsa-mir-770
20	hsa-mir-1236
20	hsa-mir-140-3p
20	hsa-mir-141
20	hsa-mir-145
20	hsa-mir-190
20	hsa-mir-190b
20	hsa-mir-200a
20	hsa-mir-223
20	hsa-mir-324-5p
20	hsa-mir-346
20	hsa-mir-422a
20	hsa-mir-485-3p
20	hsa-mir-526b
20	hsa-mir-562
20	hsa-mir-593
20	hsa-mir-604
20	hsa-mir-614

20	hsa-mir-632
20	hsa-mir-654-3p
20	hsa-mir-758
20	hsa-mir-768-3p
20	hsa-mir-95
19	hsa-mir-543
19	hsa-mir-607
19	hsa-mir-943
19	NM_001170794
19	NR_027655
18	hsa-mir-130a
18	hsa-mir-137
18	hsa-mir-147b
18	hsa-mir-151-5p
18	hsa-mir-155
18	hsa-mir-199b-3p
18	hsa-mir-200b
18	hsa-mir-200c
18	hsa-mir-208b
18	hsa-mir-219-2-3p
18	hsa-mir-299-5p
18	hsa-mir-301a
18	hsa-mir-30c
18	hsa-mir-30d
18	hsa-mir-30e
18	hsa-mir-31
18	hsa-mir-338-5p
18	hsa-mir-361-5p
18	hsa-mir-369-3p
18	hsa-mir-374b
18	hsa-mir-380
18	hsa-mir-409-5p
18	hsa-mir-429
18	hsa-mir-454
18	hsa-mir-514
18	hsa-mir-524-3p
18	hsa-mir-525-3p
18	hsa-mir-555
18	hsa-mir-563
18	hsa-mir-578
18	hsa-mir-582-3p
18	hsa-mir-584
18	hsa-mir-657
18	hsa-mir-675
18	hsa-mir-935
17	hsa-mir-1204
17	hsa-mir-1226
17	hsa-mir-1251

17	hsa-mir-1979
17	hsa-mir-489
17	hsa-mir-592
17	hsa-mir-617
17	hsa-mir-653
17	hsa-mir-802
17	NM_002049
17	NM_003152
17	NM_015869
15	hsa-mir-133b
15	hsa-mir-149
15	hsa-mir-191
15	hsa-mir-193a-5p
15	hsa-mir-587
15	hsa-mir-767-5p
13	NM_000346
13	NM_001127612
13	NM_001130173
13	NM_001145662
13	NM_001426
13	NM_001964
13	NM_002015
13	NM_002198
13	NM_002199
13	NM_002398
13	NM_002448
13	NM_002585
13	NM_002702
13	NM_002918
13	NM_003109
13	NM_003131
13	NM_003140
13	NM_003150
13	NM_003412
13	NM_003413
13	NM_004364
13	NM_004430
13	NM_004506
13	NM_005229
13	NM_005257
13	NM_005526
13	NM_005604
13	NM_005938
13	NM_007129
13	NM_007348
13	NM_012183
13	NM_016170
13	NM_139266

13	NM_152989
13	NM_181459
13	NM_197957
12	NM_001127216
12	NM_001136177
12	NM_004031
12	NM_006163
12	NM_006193
12	NM_018942
12	NM_032567
11	hsa-mir-184
11	hsa-mir-198
11	hsa-mir-338-3p
11	hsa-mir-421
11	hsa-mir-515-5p
11	hsa-mir-769-5p
11	hsa-mir-770-5p
10	hsa-let-7b
10	hsa-let-7g
10	hsa-let-7i
10	hsa-mir-1
10	hsa-mir-106b
10	hsa-mir-122
10	hsa-mir-1224-5p
10	hsa-mir-1225-3p
10	hsa-mir-1225-5p
10	hsa-mir-125a-3p
10	hsa-mir-127-5p
10	hsa-mir-139-5p
10	hsa-mir-140-5p
10	hsa-mir-142-3p
10	hsa-mir-146b-3p
10	hsa-mir-146b-5p
10	hsa-mir-147
10	hsa-mir-148a
10	hsa-mir-151-3p
10	hsa-mir-152
10	hsa-mir-15a
10	hsa-mir-193a-3p
10	hsa-mir-193b
10	hsa-mir-206
10	hsa-mir-214
10	hsa-mir-217
10	hsa-mir-219-5p
10	hsa-mir-22
10	hsa-mir-220c
10	hsa-mir-224
10	hsa-mir-25

10	hsa-mir-28-3p
10	hsa-mir-28-5p
10	hsa-mir-296-3p
10	hsa-mir-296-5p
10	hsa-mir-299-3p
10	hsa-mir-32
10	hsa-mir-323-5p
10	hsa-mir-324-3p
10	hsa-mir-335
10	hsa-mir-33a
10	hsa-mir-342-5p
10	hsa-mir-34c-5p
10	hsa-mir-361-3p
10	hsa-mir-370
10	hsa-mir-409-3p
10	hsa-mir-411
10	hsa-mir-423-5p
10	hsa-mir-424
10	hsa-mir-450b-5p
10	hsa-mir-484
10	hsa-mir-486-3p
10	hsa-mir-488
10	hsa-mir-491-3p
10	hsa-mir-494
10	hsa-mir-501-3p
10	hsa-mir-502-3p
10	hsa-mir-503
10	hsa-mir-508-3p
10	hsa-mir-508-5p
10	hsa-mir-509-5p
10	hsa-mir-513b
10	hsa-mir-518d-3p
10	hsa-mir-518d-5p
10	hsa-mir-519b-5p
10	hsa-mir-519c-5p
10	hsa-mir-520a-3p
10	hsa-mir-520a-5p
10	hsa-mir-520c-5p
10	hsa-mir-525-5p
10	hsa-mir-532-5p
10	hsa-mir-542-3p
10	hsa-mir-548c-3p
10	hsa-mir-556-5p
10	hsa-mir-557
10	hsa-mir-558
10	hsa-mir-564
10	hsa-mir-567
10	hsa-mir-574-3p

10	hsa-mir-574-5p
10	hsa-mir-576-3p
10	hsa-mir-590-3p
10	hsa-mir-590-5p
10	hsa-mir-595
10	hsa-mir-597
10	hsa-mir-612
10	hsa-mir-613
10	hsa-mir-615-3p
10	hsa-mir-628-3p
10	hsa-mir-628-5p
10	hsa-mir-629
10	hsa-mir-636
10	hsa-mir-639
10	hsa-mir-643
10	hsa-mir-645
10	hsa-mir-646
10	hsa-mir-647
10	hsa-mir-648
10	hsa-mir-652
10	hsa-mir-654-5p
10	hsa-mir-663
10	hsa-mir-671-5p
10	hsa-mir-744
10	hsa-mir-766
10	hsa-mir-768-5p
10	hsa-mir-876-3p
10	hsa-mir-885-3p
10	hsa-mir-891a
10	hsa-mir-93
10	NM_001079539
9	hsa-mir-1178
9	hsa-mir-139
8	hsa-mir-151
8	hsa-mir-548g
8	hsa-mir-548j
8	hsa-mir-641
7	hsa-mir-1182
7	hsa-mir-1225
7	hsa-mir-1244
7	hsa-mir-1247
7	hsa-mir-1266
7	hsa-mir-1285
7	hsa-mir-1301
7	hsa-mir-1307
7	hsa-mir-135b
7	hsa-mir-1470
7	hsa-mir-384

7	hsa-mir-505
7	hsa-mir-506
7	hsa-mir-507
7	hsa-mir-513a-3p
7	hsa-mir-513a-5p
7	hsa-mir-520e
7	hsa-mir-548i
7	hsa-mir-588
7	hsa-mir-591
7	hsa-mir-601
7	hsa-mir-615
7	hsa-mir-622
7	hsa-mir-634
7	hsa-mir-663b
7	hsa-mir-7
7	hsa-mir-939
7	NM_018416
7	NM_030661
7	NM_139276
7	NM_153631
7	NM_213662
6	hsa-let-7a
6	hsa-let-7c
6	hsa-let-7d
6	hsa-let-7e
6	hsa-let-7f
6	hsa-mir-100
6	hsa-mir-103
6	hsa-mir-107
6	hsa-mir-1227
6	hsa-mir-1234
6	hsa-mir-124
6	hsa-mir-1253
6	hsa-mir-125b
6	hsa-mir-128
6	hsa-mir-1306
6	hsa-mir-132
6	hsa-mir-133a
6	hsa-mir-135a
6	hsa-mir-143
6	hsa-mir-144
6	hsa-mir-153
6	hsa-mir-17
6	hsa-mir-182
6	hsa-mir-183
6	hsa-mir-18a
6	hsa-mir-195
6	hsa-mir-196a

6	hsa-mir-196b
6	hsa-mir-199a-3p
6	hsa-mir-199a-5p
6	hsa-mir-19a
6	hsa-mir-19b
6	hsa-mir-208a
6	hsa-mir-20a
6	hsa-mir-21
6	hsa-mir-212
6	hsa-mir-218
6	hsa-mir-219-1-5p
6	hsa-mir-221
6	hsa-mir-222
6	hsa-mir-24
6	hsa-mir-27a
6	hsa-mir-27b
6	hsa-mir-297
6	hsa-mir-29a
6	hsa-mir-29b
6	hsa-mir-29c
6	hsa-mir-302a
6	hsa-mir-302b
6	hsa-mir-302c
6	hsa-mir-302d
6	hsa-mir-326
6	hsa-mir-33b
6	hsa-mir-365
6	hsa-mir-367
6	hsa-mir-372
6	hsa-mir-373
6	hsa-mir-374a
6	hsa-mir-382
6	hsa-mir-451
6	hsa-mir-497
6	hsa-mir-511
6	hsa-mir-512-3p
6	hsa-mir-516b
6	hsa-mir-517a
6	hsa-mir-517b
6	hsa-mir-517c
6	hsa-mir-518a-3p
6	hsa-mir-518b
6	hsa-mir-518c
6	hsa-mir-519a
6	hsa-mir-520a
6	hsa-mir-521
6	hsa-mir-522
6	hsa-mir-526a

6	hsa-mir-545
6	hsa-mir-548a-3p
6	hsa-mir-549
6	hsa-mir-552
6	hsa-mir-553
6	hsa-mir-559
6	hsa-mir-566
6	hsa-mir-568
6	hsa-mir-570
6	hsa-mir-573
6	hsa-mir-579
6	hsa-mir-586
6	hsa-mir-589
6	hsa-mir-608
6	hsa-mir-619
6	hsa-mir-620
6	hsa-mir-624
6	hsa-mir-625
6	hsa-mir-633
6	hsa-mir-637
6	hsa-mir-644
6	hsa-mir-650
6	hsa-mir-658
6	hsa-mir-661
6	hsa-mir-668
6	hsa-mir-708
6	hsa-mir-765
6	hsa-mir-877
6	hsa-mir-9
6	hsa-mir-924
6	hsa-mir-92a
6	hsa-mir-92b
6	hsa-mir-933
6	hsa-mir-940
6	hsa-mir-96
6	NM_001001928
6	NM_001455
6	NM_001621
6	NM_005036
6	NM_181457
6	NM_181458
6	NM_181460
2	hsa-mir-105
2	hsa-mir-10b
2	hsa-mir-1185
2	hsa-mir-1201
2	hsa-mir-1206
2	hsa-mir-1228

2	hsa-mir-1229
2	hsa-mir-1233
2	hsa-mir-1238
2	hsa-mir-1243
2	hsa-mir-1246
2	hsa-mir-1249
2	hsa-mir-1254
2	hsa-mir-1255a
2	hsa-mir-1255b
2	hsa-mir-1258
2	hsa-mir-125a
2	hsa-mir-1261
2	hsa-mir-1269
2	hsa-mir-1276
2	hsa-mir-1277
2	hsa-mir-1280
2	hsa-mir-1283
2	hsa-mir-1284
2	hsa-mir-1289
2	hsa-mir-1290
2	hsa-mir-1292
2	hsa-mir-1293
2	hsa-mir-129-3p
2	hsa-mir-129-5p
2	hsa-mir-1296
2	hsa-mir-1297
2	hsa-mir-1299
2	hsa-mir-1302
2	hsa-mir-1305
2	hsa-mir-1308
2	hsa-mir-1322
2	hsa-mir-1323
2	hsa-mir-134
2	hsa-mir-140
2	hsa-mir-1471
2	hsa-mir-1538
2	hsa-mir-15b
2	hsa-mir-16
2	hsa-mir-181a
2	hsa-mir-181b
2	hsa-mir-1827
2	hsa-mir-193a
2	hsa-mir-211
2	hsa-mir-2113
2	hsa-mir-216b
2	hsa-mir-220a
2	hsa-mir-2276
2	hsa-mir-2277

2	hsa-mir-23a
2	hsa-mir-23b
2	hsa-mir-26a
2	hsa-mir-28
2	hsa-mir-296
2	hsa-mir-298
2	hsa-mir-302e
2	hsa-mir-320c
2	hsa-mir-324
2	hsa-mir-328
2	hsa-mir-330
2	hsa-mir-342
2	hsa-mir-375
2	hsa-mir-378
2	hsa-mir-381
2	hsa-mir-450a
2	hsa-mir-450b
2	hsa-mir-453
2	hsa-mir-485
2	hsa-mir-487a
2	hsa-mir-487b
2	hsa-mir-492
2	hsa-mir-504
2	hsa-mir-512-5p
2	hsa-mir-513c
2	hsa-mir-515-3p
2	hsa-mir-516a-5p
2	hsa-mir-518a-5p
2	hsa-mir-518d
2	hsa-mir-519c
2	hsa-mir-519d
2	hsa-mir-519e
2	hsa-mir-520c
2	hsa-mir-520d
2	hsa-mir-520f
2	hsa-mir-520g
2	hsa-mir-520h
2	hsa-mir-524
2	hsa-mir-527
2	hsa-mir-539
2	hsa-mir-542
2	hsa-mir-544
2	hsa-mir-548a-5p
2	hsa-mir-548b
2	hsa-mir-548d-3p
2	hsa-mir-548d-5p
2	hsa-mir-548f
2	hsa-mir-548h

2	hsa-mir-548l
2	hsa-mir-548p
2	hsa-mir-548q
2	hsa-mir-551a
2	hsa-mir-551b
2	hsa-mir-569
2	hsa-mir-576
2	hsa-mir-598
2	hsa-mir-600
2	hsa-mir-603
2	hsa-mir-621
2	hsa-mir-627
2	hsa-mir-628
2	hsa-mir-630
2	hsa-mir-631
2	hsa-mir-635
2	hsa-mir-655
2	hsa-mir-670
2	hsa-mir-718
2	hsa-mir-759
2	hsa-mir-760
2	hsa-mir-762
2	hsa-mir-764
2	hsa-mir-767
2	hsa-mir-769
2	hsa-mir-886
2	hsa-mir-887
2	hsa-mir-889
2	hsa-mir-944
2	hsa-mir-98
2	hsa-mir-99b
2	NM_000267
2	NM_001042492
2	NM_001136023
2	NM_001186
2	NM_002126
2	NM_006940
2	NM_021813
2	NM_138473
2	NM_178010
2	NM_201559
2	NM_206866
2	NR_026893
1	hsa-mir-423
1	hsa-mir-99a
1	NM_005263

