### SUPPLEMENTARY TABLES

**Supplementary Table 2. The function of module 2 within PPI network.**

| Term ID   | Term description                  | Observed gene count | Background gene count | False discovery rate | Matching proteins in your network (IDs)                                                                 | Matching proteins in your network (labels)       |
|-----------|-----------------------------------|---------------------|-----------------------|----------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| hsa03010  | Ribosome                          | 18                  | 130                   | 7.24E-22             | ENSP00000222247, ENSP00000230050, ENSP00000262584, ENSP00000270625, ENSP00000272317, ENSP00000346015, ENSP00000346037, ENSP00000346080, ENSP00000357555, ENSP00000379506, ENSP00000400467, ENSP00000404375, ENSP00000416429, ENSP00000418082, ENSP00000428085, ENSP00000429374, ENSP00000472469, ENSP00000472985 | RPL14, RPL18A, RPL22L1, RPL27A, RPL30, RPL32, RPL36A, RPL37A, RPL8, RPL9, RPLP1, RPS1I, RPS12, RPS20, RPS27, RPS27A, RPS28, RPS5                             |
| hsa03013  | RNA transport                     | 19                  | 159                   | 7.24E-22             | ENSP00000216190, ENSP00000220849, ENSP00000245538, ENSP00000253108, ENSP00000258742, ENSP00000261600, ENSP00000265097, ENSP00000313007, ENSP00000326531, ENSP00000354125, ENSP00000356448, ENSP00000364448, ENSP00000369391, ENSP00000379182, ENSP00000379475, ENSP00000389182, ENSP00000420306, ENSP00000429931, ENSP00000436679 | DDX39B, EIF3B, EIF3D, EIF3E, EIF3G, EIF3H, NUPL2, NXF1, PABPC1, RAEN, RPP30, RPP40, THOC1, THOC2, THOC3, THOC5, THOC6, TPR, UPF3A                                             |
| hsa03008  | Ribosome biogenesis in eukaryotes | 12                  | 76                    | 1.77E-15             | ENSP00000221801, ENSP00000225298, ENSP00000261708, ENSP00000264279, ENSP00000321449, ENSP00000355541, ENSP00000369162, ENSP00000369391, ENSP00000370589, ENSP00000377944, ENSP00000389182, ENSP00000436679 | FBL, HEATR1, NOP56, NOP58, NXF1, RIOK1, RPP30, RPP40, RRP7A, UTP14A, UTP18, UTP6                                                                     |
| hsa03018  | RNA degradation                   | 8                   | 77                    | 2.82E-09             | ENSP00000221233, ENSP00000258169, ENSP00000313007, ENSP00000315476, ENSP00000359939, ENSP00000361433, ENSP00000368984, ENSP00000374354 | EXOSC1, EXOSC2, EXOSC4, EXOSC5, EXOSC8, EXOSC9, MHPHOSPH6, PABPC1                                                                    |
### Supplementary Table 3. The function of module 3 within PPI network.

| Term ID | Term description | Observed gene count | Background gene count | False discovery rate | Matching proteins in your network (IDs) | Matching proteins in your network (labels) |
|---------|------------------|---------------------|-----------------------|----------------------|-----------------------------------------|------------------------------------------|
| hsa03010 | Ribosome         | 8                   | 130                   | 1.44E-14             | ENSP00000288937,                      | MRPL13,                                 |
|         |                  |                     |                       |                      | ENSP00000296102,                      | MRPL17,                                 |
|         |                  |                     |                       |                      | ENSP00000306548,                      | MRPL21,                                 |
|         |                  |                     |                       |                      | ENSP00000354525,                      | MRPL24,                                 |
|         |                  |                     |                       |                      | ENSP00000354580,                      | MRPL33,                                 |
|         |                  |                     |                       |                      | ENSP00000357823,                      | MRPL9,                                  |
|         |                  |                     |                       |                      | ENSP00000384952,                      | MRPS12,                                 |
|         |                  |                     |                       |                      | ENSP00000461930                       | MRPS21,                                 |