**Table S1.** Additional genes selected because of their interaction with more than one of the PAX6 target genes showed by IPA tool.

| Related genes | Target genes |
|---------------|--------------|
|               | ABI3BP | ACADM | ATXN1 | BDR3 | COL4A2 | DGKI | GNG4 | IL10RA | KCNQ1 | MCC | RABGGTB | SORBS1 |
| TGFB1         | X      | X     |       |      |        |      | X    |        |       |     |          |        |
| VHL           |        |       | X     | X    | X      |      |      |        |       |     |          |        |
| APP           | X      | X     |       |      |        |      |      |        |       |     |          | X      |
| MYC           |        |       | X     | X    |        |      |      |        | X     |     |          |        |
| NTRK1         | X      | X     |       |      |        |      |      |        |       |     |          | X      |
| GRB2          | X      |       |        |      |        |      |      |        |       |     |          | X      |
| HRAS          |        |       |        |      |        |      |      |        |       |     |          | X      |
| HTT           | X      |       |        |      |        |      |      |        | X     |     |          |        |
| TNF           |        |       |        |      |        |      |      |        | X     |     |          |        |
| HIST1H3A      | X      | X     |       |      |        |      |      |        |       |     |          |        |
**Figure S1.** Average Ct values of candidate genes expressed in NLBs cultures from human. The upper limit of the Ct was set to be 35.
**Figure S2.** Functional networks shared among the potential susceptibility genes for HSCR provided by GeneMANIA database.