### Supplementary Table 3. Statistical power and sample size (at 80% power) calculations of 34 SNPs interacted by the EDNRA gene according to the interaction p-value ranking

| Gene   | Chr      | SNP       | BP       | M/m | SNP by rs700651 (BOLL) interaction | lnOR | Power | Sample size |
|--------|----------|-----------|----------|-----|-----------------------------------|------|--------|-------------|
| EDNRA  | 4q31.22  | rs6841581 | 148401190| A/G | NA                                | NA   | NA     | NA          |
| RYK    | 3p22.2   | rs74585958| 133773362| G/A | -19.91                            | 0.885| 224    |             |
| SAP18  | 13q12.11 | rs9509543 | 21692404 | C/T | 1.85                              | 0.531| 322    |             |
| SLC7A10| 19q13.11 | rs11672303| 33726375 | T/C | 2.16                              | 0.789| 253    |             |
| FTO    | 16q12.2  | rs9302654 | 54009545 | C/T | -3.1                              | 0.632| 295    |             |
| SLFN11 | 17q12    | rs7781463 | 33678827 | A/G | -18.5                             | 0.342| 386    |             |
| EIF4H  | 7q11.23  | rs150664966| 73594157 | T/C | 20.91                             | 0.805| 249    |             |
| MPOZ   | 9p23     | rs1332064 | 12942764 | T/C | 1.75                              | 0.632| 294    |             |
| UNC13C | 15q21.3  | rs4774715 | 55140204 | C/T | -1.68                             | 0.418| 357    |             |
| CACUL1 | 10q26.11 | rs1198727 | 120767097| A/G | 1.72                              | 0.469| 341    |             |
| TNK    | 3q26.31  | rs11925024| 171014067| A/C | -2.71                             | 0.602| 303    |             |
| TNK    | 3q26.31  | rs1231    | 171031233| A/T | -2.86                             | 0.563| 313    |             |
| METTL4 | 18p11.32 | rs549315  | 2183055  | G/A | 0.59                              | 0.003| 1344   |             |
| PTCH1  | 9q22.32  | rs1105980 | 98113635 | G/C | -0.6                              | 0    | 4960   |             |
| MALL   | 2q13     | rs11780239| 110862084| C/T | -1.58                             | 0.083| 587    |             |
| CXXR4  | 2q22.1   | rs189432614| 136809235| A/G | 1.02                              | 0    | 3811   |             |
| LIN01344| 1q25.3   | rs12033118| 182229747| T/C | 0.79                              | 0    | 7191   |             |
| BOLL   | 2q33.1   | rs700651  | 198631714| A/G | 0.27                              | NA   | NA     |             |
| LIN01978| 17q25.3  | rs7351800 | 77896371 | A/C | -0.29                             | 0    | 7569   |             |
| PLEKH1 | 10q26.13 | rs10510110| 124192430| C/T | -0.26                             | 0    | 7184   |             |
| PFKP   | 10p15.2  | rs38183624| 3107217  | C/T | 0.56                              | 0    | 17089  |             |
| LIN00457| 13q13.2  | rs1536847 | 35106975 | G/T | 0.25                              | 0    | 7912   |             |
| TRIM22 | 11p15.4  | rs7480654 | 5722839  | T/C | -0.26                             | 0    | 8049   |             |
| CDH13  | 16q23.3  | rs3848296 | 82550548 | G/A | -0.31                             | 0    | 5955   |             |
| FOXP1  | 3p13     | rs878118  | 71246228 | T/G | 0.25                              | 0    | 8960   |             |
| LIN00879| 3q11.2   | rs4411883 | 94549686 | T/G | -0.37                             | 0    | 10779  |             |
| RGPD4  | 2q12.3   | rs328025  | 108355045| G/A | -0.19                             | 0    | 15894  |             |
| RUFY1  | 5q35.3   | rs4075890 | 178997373| T/C | -0.21                             | 0    | 21563  |             |
| RGPD4  | 2q12.3   | rs700855  | 108368694| T/C | -0.18                             | 0    | 15894  |             |
| CCDC3  | 10p13    | rs12412014| 12911725 | G/C | -0.14                             | 0    | 17480  |             |
| RPMR   | 2q23.3   | rs5005908 | 154003680| G/T | -0.13                             | 0    | 63782  |             |
| RBMS3  | 3p24.1   | rs1979271 | 29607405 | T/A | 0.13                              | 0    | 57029  |             |
| RRe81  | 6p24.3   | rs9505086 | 7232186  | T/C | 0.06                              | 0    | 64943  |             |
| DST    | 6p12.1   | rs117021265| 56628021 | T/C | 0.16                              | 0    | 121308 |             |
| C5orf60| 5q35.5   | rs62405726| 179069468| G/A | -0.02                             | 0    | >100000|             |
| ELF285 | 3q27.1   | rs4350902 | 184352200| T/C | -0.01                             | 0    | >100000|             |

Power indicates a statistical power. Sample size shows the number of cases reaching at a 80% statistical power. SNP: single-nucleotide polymorphism, Chr: chromosome, BP: base-pair position, M/m: major/minor allele type, lnOR: natural log-transformed odds ratio, NA: not available.