# Supplementary Material

*TOMM40* **'523 Genotype Distinguishes Patterns of Cognitive Improvement for Executive Function in** *APOE* **ε3 Homozygotes**

**Supplementary Table 1.** Results of Multigroup Latent Growth Curve Models, unstandardized estimates

| CLINICALLY STABLE n = 679 | Overall Cognition B, p | Memory B, p | Attention B, p | Executive Function B, p | Language B, p |
|---|---|---|---|---|---|
| *Intercept* | | | | | |
| Age | -0.025, <0.001 | -0.025, <0.001 | -0.027, <0.001 | -0.028, <0.001 | -0.021, <0.001 |
| Sex | 0.105, 0.011 | 0.419, <0.001 | -0.120, 0.027 | -0.019, 0.139 | 0.136, 0.027 |
| Education | 0.042, <0.001 | 0.034, <0.001 | 0.027, 0.003 | 0.054, <0.001 | 0.053, <0.001 |
| *TOMM40* VL (Carrier/Non-Carrier) | -0.079, **0.074** | -0.030, 0.629 | -0.109, 0.060 | -0.163, **0.006** | -0.019, 0.768 |
| *Slope* | | | | | |
| Age | -0.002, 0.007 | -0.004, 0.001 | -0.001, 0.338 | -0.002, 0.118 | -0.001, 0.327 |
| Sex | -0.015, 0.036 | -0.030, 0.007 | 0.009, 0.481 | -0.019, 0.139 | -0.018, 0.133 |
| Education | 0.000, 0.947 | -0.003, 0.088 | 0.003, 0.166 | 0.001, 0.635 | 0.000, 0.813 |
| *TOMM40* VL (Carrier/Non-Carrier) | 0.004, 0.639 | -0.006, 0.647 | 0.011, 0.428 | 0.027, **0.044** | -0.020, 0.132 |
| **CLINICALLY PROGRESSED** n = 161 | Overall Cognition B, p | Memory B, p | Attention B, p | Executive Function B, p | Language B, p |
| *Intercept* | | | | | |
| Age | -0.033, 0.001 | -0.029, 0.022 | -0.023, 0.086 | -0.040, 0.011 | -0.039, 0.003 |
| Sex | 0.030, 0.744 | 0.295, 0.011 | -0.019, 0.873 | -0.044, 0.757 | -0.065, 0.588 |
| Education | 0.052, <0.001 | 0.065, 0.001 | 0.054, 0.006 | 0.034, 0.136 | 0.062, 0.002 |
| *TOMM40* VL (Carrier/Non-Carrier) | -0.098, 0.317 | -0.147, 0.242 | 0.021, 0.873 | -0.018, **0.904** | -0.244, 0.060 |
| *Slope* | | | | | |
| Age | -0.003, 0.099 | -0.009, 0.003 | 0.001, 0.669 | -0.002, 0.092 | -0.002, 0.455 |
| Sex | 0.008, 0.630 | -0.015, 0.601 | -0.006, 0.824 | -0.026, 0.353 | 0.025, 0.326 |
| Education | 0.002, 0.463 | 0.002, 0.731 | -0.008, 0.045 | 0.011, 0.015 | 0.003, 0.481 |
| *TOMM40* VL (Carrier/Non-Carrier) | 0.024, 0.150 | -0.001, 0.964 | 0.035, 0.208 | 0.018, **0.551** | 0.038, 0.167 |
| *Model Fit* | | | | | |
| $\chi^2$ *(df)* | 43.71 (44) | 116.48 (44) | 44.15 (44) | 50.57 (44) | 37.74 (44) |
| *RMSEA* | 0.000 | 0.063 | 0.003 | 0.019 | 0.000 |
| *CFI* | 1.00 | 0.98 | 1.00 | 0.998 | 1.00 |