SUPPLEMENTARY TABLES

Supplementary Table 1. Basic characteristics of the genotyped participants of European ancestry in the selected studies over all available longitudinal measurements.

| Study          | Source | N     | Men (%) | Age (SD, SE), years | Aβ40 (SD, SE), pg/ml | Aβ42 (SD, SE), pg/ml | Tau (SD, SE), pg/ml | pTau (SD, SE), pg/ml |
|----------------|--------|-------|---------|---------------------|----------------------|----------------------|---------------------|---------------------|
| ADNI-1         | Plasma | 2077  | 1269 (61.1) | 76.6 (6.6, 0.1)     | 164.4 (46.7, 1.0)    | 39.9 (10.9, 0.2)    | NA                  | NA                  |
| ADNI-1         | CSF    | 948   | 571 (60.2)   | 76.7 (6.9, 0.2)     | 7844.7 (2326.7, 97.1)| 768.6 (365.6, 11.9)| 307.6 (122.3, 4.0)| 29.7 (13.7, 0.4)   |
| ADNI-2/GO      | CSF    | 636   | 357 (56.1)   | 73.9 (7.4, 0.3)     | 8652.0 (2492.9, 105.0)| 901.4 (369.0, 14.6)| 279.6 (121.9, 4.8)| 26.3 (13.3, 0.5)   |

Abbreviation: CSF: cerebrospinal fluid; SD: standard deviation; SE: standard error. N denotes the total number of observations of Alzheimer’s disease (AD) biomarkers at four (plasma) and up to eight (CSF) examinations. ADNI-1 and ADNI-2/GO denote the AD Neuroimaging Initiative initial and extended cohorts, respectively. Age was defined at the time of the AD biomarker measurement.

Supplementary Table 2. Pearson pair-wise correlation estimates between Alzheimer’s disease (AD) biomarkers in selected studies.

| Study          | Biomarker_1 | Biomarker_2 | N   | Correlation, r | P value |
|----------------|--------------|--------------|-----|----------------|---------|
| ADNI-1         | Aβ40_plasma  | Aβ42_plasma  | 608 | 0.703          | 6.80E-92|
| ADNI-1         | Aβ40_plasma  | Tau_plasma   | 449 | 0.127          | 7.03E-03|
| ADNI-1         | Aβ42_plasma  | Tau_plasma   | 450 | 0.064          | 1.73E-01|
| ADNI-1         | Aβ40_CSF     | Aβ42_CSF     | 305 | 0.304          | 6.41E-08|
| ADNI-1         | Aβ40_CSF     | Tau_CSF      | 339 | 0.524          | 2.85E-25|
| ADNI-1         | Aβ40_CSF     | pTau_CSF     | 339 | 0.460          | 4.01E-19|
| ADNI-1         | Aβ42_CSF     | Tau_CSF      | 308 | 0.275          | 9.27E-07|
| ADNI-1         | Aβ42_CSF     | pTau_CSF     | 308 | 0.314          | 1.78E-08|
| ADNI-1         | Tau_CSF      | pTau_CSF     | 345 | 0.980          | 9.17E-244|
| ADNI-1         | Aβ42_plasma  | Aβ42_CSF     | 280 | 0.074          | 2.19E-01|
| ADNI-1         | Aβ40_plasma  | Aβ40_CSF     | 313 | 0.005          | 9.24E-01|
| ADNI-1         | Tau_CSF      | Tau_plasma   | 334 | 0.155          | 4.51E-03|
| ADNI-2/GO      | Aβ40_CSF     | Aβ42_CSF     | 274 | 0.253          | 2.22E-05|
| ADNI-2/GO      | Aβ40_CSF     | Tau_CSF      | 351 | 0.542          | 3.78E-28|
| ADNI-2/GO      | Aβ40_CSF     | pTau_CSF     | 351 | 0.464          | 4.13E-20|
| ADNI-2/GO      | Aβ42_CSF     | Tau_CSF      | 283 | -0.269         | 4.39E-06|
| ADNI-2/GO      | Aβ42_CSF     | pTau_CSF     | 283 | -0.326         | 2.04E-08|
| ADNI-2/GO      | Tau_CSF      | pTau_CSF     | 360 | 0.979          | 3.03E-250|
| FHS_C1         | Aβ40_plasma  | Aβ42_plasma  | 636 | 0.613          | 7.16E-67|
| FHS_C1         | Aβ40_plasma  | Tau_plasma   | 128 | 0.103          | 2.49E-01|
| FHS_C1         | Aβ42_plasma  | Tau_plasma   | 128 | 0.096          | 2.80E-01|
| FHS_C2         | Aβ40_plasma  | Aβ42_plasma  | 3095| 0.500          | 9.43E-196|
| FHS_C2         | Aβ40_plasma  | Tau_plasma   | 2554| 0.108          | 5.04E-08|
| FHS_C2         | Aβ42_plasma  | Tau_plasma   | 2554| 0.068          | 5.77E-04|
| FHS_C3         | Aβ40_plasma  | Aβ42_plasma  | 3029| 0.388          | 1.40E-109|
| FHS_C3         | Aβ40_plasma  | Tau_plasma   | 3026| 0.021          | 2.45E-01|
| FHS_C3         | Aβ42_plasma  | Tau_plasma   | 3026| 0.043          | 1.91E-02|

N denotes the number of subjects. Abbreviation: CSF: cerebrospinal fluid. FHS_C1, FHS_C2, and FHS_C3 denote the Framingham Heart Study parental, offspring, and grandchildren cohorts, respectively; ADNI-1 and ADNI-2/GO denote the AD Neuroimaging Initiative initial and extended cohorts, respectively.
### Supplementary Table 3. Associations of the APOE ε4 allele with Alzheimer’s disease (AD) biomarkers.

| Study       | Type     | Biomarker | Source | Genotype | N subjects | N observations | Beta   | SE     | P value |
|-------------|----------|-----------|--------|----------|------------|----------------|--------|--------|---------|
| ADNI-1      | Baseline | Aβ40      | CSF    | ε4       | 171        | 171            | −0.047 | 0.034  | 1.76E-01|
| ADNI-1      | Baseline | Aβ40      | CSF    | ε33      | 149        | 149            | Reference |        |        |
| ADNI-2/GO   | Baseline | Aβ40      | CSF    | ε4       | 133        | 133            | 0.022  | 0.033  | 5.06E-01|
| ADNI-2/GO   | Baseline | Aβ40      | CSF    | ε33      | 185        | 185            | Reference |        |        |
| Meta        | Baseline | Aβ40      | CSF    | ε4       | 304        | 304            | −0.011 | 0.024  | 6.49E-01|
| Meta        | Baseline | Aβ40      | CSF    | ε33      | 334        | 334            | Reference |        |        |
| ADNI-1      | Longitudinal | Aβ40  | CSF    | ε4       | 173        | 271            | −0.051 | 0.049  | 2.97E-01|
| ADNI-1      | Longitudinal | Aβ40  | CSF    | ε33      | 152        | 267            | Reference |        |        |
| ADNI-2/GO   | Longitudinal | Aβ40  | CSF    | ε4       | 134        | 216            | 0.034  | 0.045  | 4.58E-01|
| ADNI-2/GO   | Longitudinal | Aβ40  | CSF    | ε33      | 186        | 290            | Reference |        |        |
| Meta        | Longitudinal | Aβ40  | CSF    | ε4       | 307        | 487            | −0.005 | 0.033  | 8.70E-01|
| Meta        | Longitudinal | Aβ40  | CSF    | ε33      | 338        | 557            | Reference |        |        |
| ADNI-1      | Baseline | Aβ40      | Plasma | ε4       | 291        | 291            | −0.795 | 4.345  | 8.55E-01|
| ADNI-1      | Baseline | Aβ40      | Plasma | ε33      | 270        | 270            | Reference |        |        |
| FHS_C1      | Baseline | Aβ40      | Plasma | ε4       | 114        | 114            | −8.986 | 4.397  | 4.15E-02|
| FHS_C1      | Baseline | Aβ40      | Plasma | ε33      | 432        | 432            | Reference |        |        |
| FHS_C2      | Baseline | Aβ40      | Plasma | ε4       | 630        | 630            | 0.666  | 1.827  | 7.16E-01|
| FHS_C2      | Baseline | Aβ40      | Plasma | ε33      | 1982       | 1982           | Reference |        |        |
| FHS_C3      | Baseline | Aβ40      | Plasma | ε4       | 674        | 674            | −2.299 | 2.609  | 3.78E-01|
| FHS_C3      | Baseline | Aβ40      | Plasma | ε33      | 1916       | 1916           | Reference |        |        |
| ARIC        | Baseline | Aβ40      | Plasma | ε4       | 400        | 400            | −2.837 | 4.938  | 5.66E-01|
| ARIC        | Baseline | Aβ40      | Plasma | ε33      | 1083       | 1083           | Reference |        |        |
| Meta        | Baseline | Aβ40      | Plasma | ε4       | 2109       | 2109           | −1.287 | 1.300  | 3.22E-01|
| Meta        | Baseline | Aβ40      | Plasma | ε33      | 5683       | 5683           | Reference |        |        |
| ADNI-1      | Longitudinal | Aβ40  | Plasma | ε4       | 296        | 961            | −1.237 | 3.270  | 7.05E-01|
| ADNI-1      | Longitudinal | Aβ40  | Plasma | ε33      | 277        | 942            | Reference |        |        |
| Meta        | Longitudinal | Aβ40  | Plasma | ε4       | 296        | 961            | −1.237 | 3.270  | 7.05E-01|
| Meta        | Longitudinal | Aβ40  | Plasma | ε33      | 277        | 942            | Reference |        |        |
| ADNI-1      | Baseline | Aβ42      | CSF    | ε4       | 165        | 165            | −0.407 | 0.048  | 7.15E-16|
| ADNI-1      | Baseline | Aβ42      | CSF    | ε33      | 125        | 125            | Reference |        |        |
| ADNI-2/GO   | Baseline | Aβ42      | CSF    | ε4       | 127        | 127            | −0.256 | 0.049  | 3.94E-07|
| ADNI-2/GO   | Baseline | Aβ42      | CSF    | ε33      | 134        | 134            | Reference |        |        |
| Meta        | Baseline | Aβ42      | CSF    | ε4       | 292        | 292            | −0.334 | 0.034  | 1.50E-22|
| Meta        | Baseline | Aβ42      | CSF    | ε33      | 259        | 259            | Reference |        |        |
| ADNI-1      | Longitudinal | Aβ42  | CSF    | ε4       | 178        | 433            | −0.478 | 0.062  | 4.85E-14|
| ADNI-1      | Longitudinal | Aβ42  | CSF    | ε33      | 151        | 374            | Reference |        |        |
| ADNI-2/GO   | Longitudinal | Aβ42  | CSF    | ε4       | 132        | 223            | −0.274 | 0.069  | 9.49E-05|
| ADNI-2/GO   | Longitudinal | Aβ42  | CSF    | ε33      | 142        | 231            | Reference |        |        |
| Meta        | Longitudinal | Aβ42  | CSF    | ε4       | 310        | 656            | −0.387 | 0.046  | 7.32E-17|
| Meta        | Longitudinal | Aβ42  | CSF    | ε33      | 293        | 605            | Reference |        |        |
| ADNI-1      | Baseline | Aβ42      | Plasma | ε4       | 291        | 291            | −1.987 | 0.944  | 3.57E-02|
| ADNI-1      | Baseline | Aβ42      | Plasma | ε33      | 273        | 273            | Reference |        |        |
| FHS_C1      | Baseline | Aβ42      | Plasma | ε4       | 114        | 114            | −3.912 | 1.194  | 1.12E-03|
| Study       | Timepoint | Biomarker | Type  | Base | Longi | Base | Longi | Base | Longi | Base | Longi | Base | Longi | Base | Longi | Base | Longi | Base | Longi |
|-------------|-----------|-----------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| FHS_C1      | Baseline  | Aβ42      | Plasma| e33  | 432   | 432  | 432   | 432  | 432   | 432  | 432   | 432  | 432   | 432  | 432   | 432  | 432   | 432  | 432   |
| FHS_C2      | Baseline  | Aβ42      | Plasma| e4   | 630   | 630  | 1.891 | 0.466| 5.04E-05|
| FHS_C3      | Baseline  | Aβ42      | Plasma| e33  | 1982  | 1982 | 1.019 | 0.454| 2.50E-02|
| ARIC        | Baseline  | Aβ42      | Plasma| e4   | 397   | 397  | 3.114 | 0.654| 2.10E-06|
| Meta        | Baseline  | Aβ42      | Plasma| e33  | 1076  | 1076 | 1.903 | 0.271| 2.18E-12|
| ADNI-1      | Longitudinal| Aβ42    | Plasma| e4   | 296   | 962  | 1.995 | 0.799| 1.26E-02|
| Meta        | Longitudinal| Aβ42    | Plasma| e33  | 277   | 950  | Reference|
| ADNI-1      | Baseline  | Tau       | CSF   | e4   | 167   | 167  | 0.204 | 0.043| 3.04E-06|
| ADNI-2/GO   | Baseline  | Tau       | CSF   | e33  | 149   | 149  | Reference|
| Meta        | Longitudinal| Tau     | CSF   | e4   | 302   | 302  | 0.261 | 0.031| 6.58E-17|
| ADNI-1      | Longitudinal| Tau     | CSF   | e4   | 179   | 435  | 0.217 | 0.059| 2.36E-04|
| ADNI-2/GO   | Longitudinal| Tau     | CSF   | e33  | 165   | 433  | Reference|
| Meta        | Longitudinal| Tau     | CSF   | e4   | 317   | 672  | 0.260 | 0.042| 3.59E-10|
| Meta        | Longitudinal| Tau     | CSF   | e33  | 359   | 767  | Reference|
| ADNI-1      | Baseline  | Tau       | Plasma| e4   | 235   | 235  | 0.102 | 0.053| 5.75E-02|
| FHS_C1      | Baseline  | Tau       | Plasma| e4   | 20    | 20   | -0.113| 0.082| 1.72E-01|
| FHS_C2      | Baseline  | Tau       | Plasma| e33  | 93    | 93   | Reference|
| FHS_C3      | Baseline  | Tau       | Plasma| e4   | 556   | 556  | 0.019 | 0.019| 3.25E-01|
| FHS_C1      | Baseline  | Tau       | Plasma| e4   | 1721  | 1721 | Reference|
| FHS_C2      | Baseline  | Tau       | Plasma| e33  | 673   | 673  | -0.003| 0.013| 8.31E-01|
| FHS_C3      | Baseline  | Tau       | Plasma| e33  | 1914  | 1914 | Reference|

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Supplementary Table 4. Associations of the APOE ε2 allele with Alzheimer’s disease (AD) biomarkers.

| Study         | Type      | Biomarker | Source | Genotype | N subjects | N observations | Beta   | SE   | P value |
|---------------|-----------|-----------|--------|----------|------------|----------------|--------|------|---------|
| ADNI-1 Baseline | Aβ40 | CSF | e4 | 25 | 25 | 0.063 | 0.069 | 3.62E-01 |
| ADNI-1 Baseline | Aβ40 | CSF | e4 | 31 | 31 | −0.032 | 0.055 | 5.68E-01 |
| ADNI-2/GO Baseline | Aβ40 | CSF | e33 | 185 | 185 | Reference |
| Meta Baseline | Aβ40 | CSF | e4 | 56 | 56 | 0.006 | 0.043 | 8.99E-01 |
| ADNI-1 Longitudinal | Aβ40 | CSF | e4 | 25 | 27 | 0.075 | 0.093 | 4.21E-01 |
| ADNI-1 Longitudinal | Aβ40 | CSF | e33 | 152 | 267 | Reference |
| ADNI-2/GO Longitudinal | Aβ40 | CSF | e4 | 31 | 54 | −0.058 | 0.080 | 4.67E-01 |
| ARIC Baseline | Aβ40 | Plasma | e4 | 36 | 36 | 0.679 | 8.602 | 9.37E-01 |
| FHS C1 Baseline | Aβ40 | Plasma | e4 | 74 | 74 | −1.922 | 5.561 | 7.30E-01 |
| FHS C1 Baseline | Aβ40 | Plasma | e33 | 432 | 432 | Reference |
| FHS C2 Baseline | Aβ40 | Plasma | e4 | 402 | 402 | 1.457 | 2.213 | 5.10E-01 |
| FHS C2 Baseline | Aβ40 | Plasma | e33 | 1982 | 1982 | Reference |
| FHS C3 Baseline | Aβ40 | Plasma | e4 | 370 | 370 | −6.513 | 3.022 | 3.12E-02 |
| FHS C3 Baseline | Aβ40 | Plasma | e33 | 1916 | 1916 | Reference |
| ARIC Baseline | Aβ40 | Plasma | e4 | 230 | 230 | −12.561 | 6.078 | 3.90E-02 |
| ARIC Baseline | Aβ40 | Plasma | e33 | 1083 | 1083 | Reference |
| Meta Baseline | Aβ40 | Plasma | e4 | 1112 | 1112 | −2.091 | 1.608 | 1.93E-01 |
| Meta Baseline | Aβ40 | Plasma | e33 | 5683 | 5683 | Reference |
| ADNI-1 Longitudinal | Aβ40 | Plasma | e4 | 36 | 123 | −3.345 | 6.555 | 6.10E-01 |
| ADNI-1 Longitudinal | Aβ40 | Plasma | e33 | 277 | 942 | Reference |
| Meta Longitudinal | Aβ40 | Plasma | e4 | 36 | 123 | −3.345 | 6.555 | 6.10E-01 |
| Meta Longitudinal | Aβ40 | Plasma | e33 | 277 | 942 | Reference |
| ADNI-1 Baseline | Aβ42 | CSF | e4 | 17 | 17 | 0.162 | 0.106 | 1.27E-01 |
| ADNI-1 Baseline | Aβ42 | CSF | e33 | 125 | 125 | Reference |
| ADNI-2/GO Baseline | Aβ42 | CSF | e4 | 20 | 20 | 0.130 | 0.086 | 1.31E-01 |
| ADNI-2/GO Baseline | Aβ42 | CSF | e33 | 134 | 134 | Reference |
| Meta Baseline | Aβ42 | CSF | e4 | 37 | 37 | 0.143 | 0.067 | 3.18E-02 |
| Meta Baseline | Aβ42 | CSF | e33 | 259 | 259 | Reference |
| ADNI-1 Longitudinal | Aβ42 | CSF | e4 | 19 | 42 | 0.142 | 0.150 | 3.42E-01 |
| ADNI-1 Longitudinal | Aβ42 | CSF | e33 | 151 | 374 | Reference |
| ADNI-2/GO Longitudinal | Aβ42 | CSF | e4 | 20 | 38 | 0.084 | 0.144 | 5.61E-01 |
| ADNI-2/GO Longitudinal | Aβ42 | CSF | e33 | 142 | 231 | Reference |
| Meta Longitudinal | Aβ42 | CSF | e4 | 39 | 80 | 0.112 | 0.104 | 2.80E-01 |
| Meta Longitudinal | Aβ42 | CSF | e33 | 293 | 605 | Reference |
| ADNI-1 Baseline | Aβ42 | Plasma | e4 | 36 | 36 | 0.278 | 2.062 | 8.93E-01 |
| ADNI-1 Baseline | Aβ42 | Plasma | e33 | 273 | 273 | Reference |
| FHS C1 Baseline | Aβ42 | Plasma | e4 | 74 | 74 | −1.185 | 1.499 | 4.30E-01 |
| Study | Type       | Biomarker | Genotype | Mean (SD)   | p Value | SE     | Reference |
|-------|------------|-----------|----------|-------------|---------|--------|-----------|
| FHS_C1 Baseline | Plasma     | Aβ42      | e33      | 432 (432)   |         |        | Reference |
| FHS_C2 Baseline | Plasma     | Aβ42      | e4       | 402 (402)   | 0.228   | 0.567  | 6.88E-01 |
| FHS_C2 Baseline | Plasma     | Aβ42      | e33      | 1982 (1982) |         |        | Reference |
| FHS_C3 Baseline | Plasma     | Aβ42      | e4       | 370 (370)   | -0.268  | 0.565  | 6.36E-01 |
| FHS_C3 Baseline | Plasma     | Aβ42      | e33      | 1916 (1916) |         |        | Reference |
| ARIC Baseline   | Plasma     | Aβ42      | e4       | 228 (228)   | -0.198  | 0.830  | 8.12E-01 |
| ARIC Baseline   | Plasma     | Aβ42      | e33      | 1076 (1076) |         |        | Reference |
| Meta Baseline   | Plasma     | Aβ42      | e4       | 1110 (1110) | -0.105  | 0.346  | 7.61E-01 |
| Meta Baseline   | Plasma     | Aβ42      | e33      | 5679 (5679) |         |        | Reference |
| ADNI-1 Longitudinal | Plasma | Aβ42      | e4       | 36 (123)    | -0.982  | 1.751  | 5.75E-01 |
| ADNI-1 Longitudinal | Plasma | Aβ42      | e33      | 277 (950)   |         |        | Reference |
| Meta Longitudinal | Plasma  | Aβ42      | e4       | 36 (123)    | -0.982  | 1.751  | 5.75E-01 |
| ADNI-1 Baseline | Tau        | CSF       | e4       | 24 (24)     | -0.003  | 0.093  | 9.71E-01 |
| ADNI-1 Baseline | Tau        | CSF       | e33      | 149 (149)   |         |        | Reference |
| ADNI-2/GO Baseline | Tau     | CSF       | e4       | 31 (31)     | -0.111  | 0.071  | 1.17E-01 |
| ADNI-2/GO Baseline | Tau     | CSF       | e33      | 192 (192)   |         |        | Reference |
| Meta Baseline   | Tau        | CSF       | e4       | 55 (55)     | -0.072  | 0.056  | 2.02E-01 |
| Meta Baseline   | Tau        | CSF       | e33      | 341 (341)   |         |        | Reference |
| ADNI-1 Longitudinal | Tau    | CSF       | e4       | 25 (59)     | 0.013   | 0.120  | 9.11E-01 |
| ADNI-1 Longitudinal | Tau    | CSF       | e33      | 165 (433)   |         |        | Reference |
| ADNI-2/GO Longitudinal | Tau   | CSF       | e4       | 31 (61)     | -0.106  | 0.101  | 2.93E-01 |
| ADNI-2/GO Longitudinal | Tau   | CSF       | e33      | 194 (334)   |         |        | Reference |
| Meta Longitudinal | Tau      | CSF       | e4       | 56 (120)    | -0.057  | 0.077  | 4.64E-01 |
| Meta Longitudinal | Tau      | CSF       | e33      | 359 (767)   |         |        | Reference |
| ADNI-1 Baseline | Tau        | Plasma    | e4       | 32 (32)     | -0.127  | 0.111  | 2.52E-01 |
| ADNI-1 Baseline | Tau        | Plasma    | e33      | 223 (223)   |         |        | Reference |
| FHS_C1 Baseline | Tau        | Plasma    | e4       | 21 (21)     | -0.127  | 0.055  | 2.12E-02 |
| FHS_C1 Baseline | Tau        | Plasma    | e33      | 93 (93)     |         |        | Reference |
| FHS_C2 Baseline | Tau        | Plasma    | e4       | 350 (350)   | 0.011   | 0.020  | 5.77E-01 |
| FHS_C2 Baseline | Tau        | Plasma    | e33      | 1721 (1721)|         |        | Reference |
| FHS_C3 Baseline | Tau        | Plasma    | e4       | 370 (370)   | 0.037   | 0.019  | 4.80E-02 |
| FHS_C3 Baseline | Tau        | Plasma    | e33      | 1914 (1914)|         |        | Reference |
| Meta Baseline   | Tau        | Plasma    | e4       | 773 (773)   | 0.014   | 0.013  | 2.88E-01 |
| Meta Baseline   | Tau        | Plasma    | e33      | 3951 (3951)|         |        | Reference |

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Supplementary Table 5. Associations of compound genotypes with Alzheimer’s disease (AD) Aβ42 and tau biomarkers measured at baseline.

| Study       | Biomarker | Source | Genotype | N  | Beta  | SE   | P value  |
|-------------|-----------|--------|----------|----|-------|------|----------|
| ADNI-1      | Aβ42      | CSF    | 0XY      | 30 | −0.029| 0.079| 7.14E-01 |
| ADNI-1      | Aβ42      | CSF    | 100+200  | 31 | −0.347| 0.084| 6.82E-05 |
| ADNI-1      | Aβ42      | CSF    | 111+222  | 101| −0.411| 0.055| 1.64E-12 |
| ADNI-1      | Aβ42      | CSF    | 1XY+2XY  | 138| −0.450| 0.050| 1.08E-16 |
| ADNI-1      | Aβ42      | CSF    | 000      | 112| Reference |
| ADNI-2/GO   | Aβ42      | CSF    | 0XY      | 29 | 0.078 | 0.077| 3.13E-01 |
| ADNI-2/GO   | Aβ42      | CSF    | 100+200  | 25 | −0.208| 0.078| 8.82E-03 |
| ADNI-2/GO   | Aβ42      | CSF    | 111+222  | 77 | −0.268| 0.056| 3.06E-06 |
| ADNI-2/GO   | Aβ42      | CSF    | 1XY+2XY  | 104| −0.288| 0.053| 1.77E-07 |
| ADNI-2/GO   | Aβ42      | CSF    | 000      | 125| Reference |
| Meta        | Aβ42      | CSF    | 0XY      | 59 | 0.026 | 0.055| 6.37E-01 |
| Meta        | Aβ42      | CSF    | 100+200  | 56 | −0.272| 0.057| 2.13E-06 |
| Meta        | Aβ42      | CSF    | 111+222  | 178| −0.341| 0.039| 2.46E-18 |
| Meta        | Aβ42      | CSF    | 1XY+2XY  | 242| −0.373| 0.037| 2.18E-24 |
| ADNI-1      | Aβ42      | Plasma | 0XY      | 48 | −2.137| 1.752| 2.23E-01 |
| ADNI-1      | Aβ42      | Plasma | 100+200  | 51 | −1.342| 1.769| 4.49E-01 |
| ADNI-1      | Aβ42      | Plasma | 111+222  | 197| −2.598| 1.067| 1.53E-02 |
| ADNI-1      | Aβ42      | Plasma | 1XY+2XY  | 252| −2.418| 1.012| 1.73E-02 |
| ADNI-1      | Aβ42      | Plasma | 000      | 261| Reference |
| FHS_C1      | Aβ42      | Plasma | 0XY      | 60 | −2.829| 1.588| 7.54E-02 |
| FHS_C1      | Aβ42      | Plasma | 100+200  | 22 | −4.084| 2.621| 1.20E-01 |
| FHS_C1      | Aβ42      | Plasma | 111+222  | 50 | −4.227| 1.776| 1.78E-02 |
| FHS_C1      | Aβ42      | Plasma | 1XY+2XY  | 77 | −3.850| 1.442| 7.86E-03 |
| FHS_C1      | Aβ42      | Plasma | 000      | 344| Reference |
| FHS_C2      | Aβ42      | Plasma | 0XY      | 354| −0.582| 0.585| 3.20E-01 |
| FHS_C2      | Aβ42      | Plasma | 100+200  | 133| −2.231| 0.931| 1.66E-02 |
| FHS_C2      | Aβ42      | Plasma | 111+222  | 397| −1.670| 0.573| 3.59E-03 |
| FHS_C2      | Aβ42      | Plasma | 1XY+2XY  | 504| −2.093| 0.516| 5.12E-05 |
| FHS_C2      | Aβ42      | Plasma | 000      | 1843| Reference |
| FHS_C3      | Aβ42      | Plasma | 0XY      | 292| 1.460 | 0.626| 1.98E-02 |
| FHS_C3      | Aβ42      | Plasma | 100+200  | 128| −1.586| 0.908| 8.07E-02 |
| FHS_C3      | Aβ42      | Plasma | 111+222  | 512| −0.848| 0.494| 8.63E-02 |
| FHS_C3      | Aβ42      | Plasma | 1XY+2XY  | 615| −0.618| 0.462| 1.81E-01 |
| FHS_C3      | Aβ42      | Plasma | 000      | 1994| Reference |
| ARIC        | Aβ42      | Plasma | 0XY      | 197| 1.809 | 0.860| 3.56E-02 |
| ARIC        | Aβ42      | Plasma | 100+200  | 62 | −4.463| 1.463| 2.34E-03 |
| ARIC        | Aβ42      | Plasma | 111+222  | 306| −2.109| 0.724| 3.65E-03 |
| ARIC        | Aβ42      | Plasma | 1XY+2XY  | 373| −2.304| 0.671| 6.15E-04 |
| ARIC        | Aβ42      | Plasma | 000      | 1107| Reference |
| Meta        | Aβ42      | Plasma | 0XY      | 951| 0.351 | 0.364| 3.35E-01 |
| Meta        | Aβ42      | Plasma | 100+200  | 396| −2.305| 0.551| 2.82E-05 |
| Meta        | Aβ42      | Plasma | 111+222  | 1462| −1.582| 0.312| 4.14E-07 |
| Meta        | Aβ42      | Plasma | 1XY+2XY  | 1821| −1.656| 0.287| 7.98E-09 |
| Meta        | Aβ42      | Plasma | 000      | 5549| Reference |
| ADNI-1      | Tau       | CSF    | 0XY      | 31 | 0.158 | 0.075| 3.61E-02 |
| ADNI-1      | Tau       | CSF    | 100+200  | 30 | 0.234 | 0.080| 3.99E-03 |
| ADNI-1      | Tau       | CSF    | 111+222  | 105| 0.247 | 0.049| 8.28E-07 |
| ADNI-1      | Tau       | CSF    | 1XY+2XY  | 142| 0.244 | 0.043| 4.96E-08 |
| ADNI-1      | Tau       | CSF    | 000      | 142| Reference |
| ADNI-2/GO   | Tau       | CSF    | 0XY      | 39 | 0.031 | 0.068| 6.46E-01 |
| ADNI-2/GO   | Tau       | CSF    | 100+200  | 26 | 0.232 | 0.077| 3.05E-03 |
| ADNI-2/GO   | Tau       | CSF    | 111+222  | 84 | 0.342 | 0.050| 5.86E-11 |
| Study        | Biomarker | Type  | Genotype | Count | Mean   | SE    | Reference |
|-------------|-----------|-------|----------|-------|--------|-------|-----------|
| ADNI-2/GO   | Tau       | CSF   | 1XY+2XY  | 111   | 0.355  | 0.048 | 1.38E-12  |
| ADNI-2/GO   | Tau       | CSF   |          | 000   | 184    |       | Reference |
| Meta        | Tau       | CSF   | 0XY      | 70    | -0.088 | 0.050 | 7.97E-02  |
| Meta        | Tau       | CSF   | 100+200  | 56    | 0.233  | 0.056 | 2.85E-05  |
| Meta        | Tau       | CSF   | 111+222  | 189   | 0.293  | 0.035 | 4.87E-17  |
| Meta        | Tau       | CSF   | 1XY+2XY  | 253   | 0.294  | 0.032 | 6.75E-20  |
| Meta        | Tau       | CSF   |          | 000   | 326    |       | Reference |
| ADNI-1      | Tau       | Plasma| 0XY      | 39    | -0.059 | 0.099 | 5.49E-01  |
| ADNI-1      | Tau       | Plasma| 100+200  | 38    | 0.048  | 0.102 | 6.37E-01  |
| ADNI-1      | Tau       | Plasma| 111+222  | 156   | 0.085  | 0.059 | 1.53E-01  |
| ADNI-1      | Tau       | Plasma| 1XY+2XY  | 204   | 0.117  | 0.059 | 4.83E-02  |
| ADNI-1      | Tau       | Plasma|          | 000   | 216    |       | Reference |
| FHS_C1      | Tau       | Plasma| 0XY      | 17    | -0.024 | 0.092 | 7.93E-01  |
| FHS_C1      | Tau       | Plasma| 100+200  | 5     | -0.040 | 0.052 | 4.43E-01  |
| FHS_C1      | Tau       | Plasma| 111+222  | 9     | -0.099 | 0.133 | 4.58E-01  |
| FHS_C1      | Tau       | Plasma| 1XY+2XY  | 14    | -0.172 | 0.103 | 9.89E-02  |
| FHS_C1      | Tau       | Plasma|          | 000   | 91     |       | Reference |
| FHS_C2      | Tau       | Plasma| 0XY      | 300   | 0.030  | 0.020 | 1.27E-01  |
| FHS_C2      | Tau       | Plasma| 100+200  | 118   | -0.054 | 0.030 | 7.47E-02  |
| FHS_C2      | Tau       | Plasma| 111+222  | 357   | -0.022 | 0.019 | 2.34E-01  |
| FHS_C2      | Tau       | Plasma| 1XY+2XY  | 448   | -0.008 | 0.017 | 6.55E-01  |
| FHS_C2      | Tau       | Plasma|          | 000   | 1615   |       | Reference |
| FHS_C3      | Tau       | Plasma| 0XY      | 291   | -0.005 | 0.018 | 7.86E-01  |
| FHS_C3      | Tau       | Plasma| 100+200  | 128   | -0.047 | 0.026 | 7.72E-02  |
| FHS_C3      | Tau       | Plasma| 111+222  | 511   | -0.007 | 0.015 | 6.07E-01  |
| FHS_C3      | Tau       | Plasma| 1XY+2XY  | 614   | -0.002 | 0.013 | 8.88E-01  |
| FHS_C3      | Tau       | Plasma|          | 000   | 1991   |       | Reference |
| Meta        | Tau       | Plasma| 0XY      | 647   | 0.009  | 0.013 | 4.91E-01  |
| Meta        | Tau       | Plasma| 100+200  | 289   | -0.045 | 0.018 | 1.28E-02  |
| Meta        | Tau       | Plasma| 111+222  | 1033  | -0.010 | 0.011 | 3.66E-01  |
| Meta        | Tau       | Plasma| 1XY+2XY  | 1280  | -0.002 | 0.010 | 8.42E-01  |
| Meta        | Tau       | Plasma|          | 000   | 3913   |       | Reference |

ARIC is the Atherosclerosis Risk in Communities Study. FHS_C1, FHS_C2, and FHS_C3 denote the Framingham Heart Study parental, offspring, and grandchildren cohorts, respectively. ADNI-1 and ADNI-2/GO denote the Alzheimer’s disease Neuroimaging Initiative initial and extended cohorts, respectively. Meta shows the results of meta-analysis. Meta-analysis field was shown for consistency for each biomarker even if the analysis was performed in one study only. Column “Genotype” shows compound genotypes encoded by triples of numbers and X and Y letters. Numbers show the counts of minor alleles (i.e., 0, 1, 2) in rs429358_T/c, rs2075650_A/g or rs12721046_G/a SNP, in that order. The upper/lower case denotes here major/minor allele. The most frequent 000 genotype denotes the major allele homozygote for all three SNPs, i.e., rs429358_TT, rs2075650_AA, rs12721046_GG. The 100+200 genotype indicates rs429358_Tc, rs2075650_AA, rs12721046_GG (100) and rs429358_Cc, rs2075650_AA, rs12721046_GG (200). The 111+222 genotype denotes rs429358_Tc, rs2075650_Ag, rs12721046_Ga (111) and rs429358_cc, rs2075650_ga, rs12721046_0a (222). Letters X and Y indicate aggregation of minor alleles of rs2075650 and rs12721046, respectively. Genotype OXY aggregates all non-e4 genotypes except 000. The 1XY+2XY genotype aggregates rs429358_Tc (1) and rs429358_Cc (2) and all genotypes of rs2075650 (X) and rs12721046 (Y), except major allele homozygote of both SNPs, rs2075650_AA and rs12721046_GG (00), because it is included in the 100+200 genotype. Column “SE” shows standard error. A gamma general linear model with a log link function was used for all biomarkers except Aβ42 measured in plasma.
Supplementary Table 6. Comparative analysis of the associations of the selected compound genotypes with Alzheimer’s disease (AD) Aβ42 and tau biomarkers.

| Study          | Biomarker | Source | Genotype | N  | Beta  | SE   | P value |
|----------------|-----------|--------|----------|----|-------|------|---------|
| ADNI-1         | Aβ42      | CSF    | 111+222  | 101| −0.047| 0.081| 5.62E-01|
| ADNI-1         | Aβ42      | CSF    | 1XY+2XY  | 138| −0.087| 0.077| 2.64E-01|
| ADNI-1         | Aβ42      | CSF    | 100+200  | 31 | Reference |
| ADNI-2/GO      | Aβ42      | CSF    | 111+222  | 77 | −0.065| 0.095| 4.99E-01|
| ADNI-2/GO      | Aβ42      | CSF    | 1XY+2XY  | 104| −0.097| 0.096| 3.14E-01|
| ADNI-2/GO      | Aβ42      | CSF    | 100+200  | 25 | Reference |
| *Meta*         | Aβ42      | CSF    | 111+222  | 178| −0.054| 0.062| 3.77E-01|
| *Meta*         | Aβ42      | CSF    | 1XY+2XY  | 242| −0.091| 0.060| 1.32E-01|
| ADNI-1         | Aβ42      | CSF    | 100+200  | 56 | Reference |
| ADNI-1         | Aβ42      | Plasma | 111+222  | 197| −1.200| 1.626| 4.61E-01|
| ADNI-1         | Aβ42      | Plasma | 1XY+2XY  | 252| −1.189| 1.647| 4.71E-01|
| ADNI-1         | Aβ42      | Plasma | 100+200  | 51 | Reference |
| FHS_C1         | Aβ42      | Plasma | 111+222  | 50 | 0.011 | 2.532| 9.96E-01|
| FHS_C1         | Aβ42      | Plasma | 1XY+2XY  | 77 | 0.004 | 2.163| 9.98E-01|
| FHS_C1         | Aβ42      | Plasma | 100+200  | 22 | Reference |
| FHS_C2         | Aβ42      | Plasma | 111+222  | 397| 0.442 | 0.962| 6.46E-01|
| FHS_C2         | Aβ42      | Plasma | 1XY+2XY  | 504| 0.051 | 0.914| 9.56E-01|
| FHS_C2         | Aβ42      | Plasma | 100+200  | 133| Reference |
| FHS_C3         | Aβ42      | Plasma | 111+222  | 512| 0.706 | 0.997| 4.79E-01|
| FHS_C3         | Aβ42      | Plasma | 1XY+2XY  | 615| 0.939 | 0.992| 3.44E-01|
| FHS_C3         | Aβ42      | Plasma | 100+200  | 128| Reference |
| ARIC           | Aβ42      | Plasma | 111+222  | 306| 2.508 | 1.460| 8.66E-02|
| ARIC           | Aβ42      | Plasma | 1XY+2XY  | 373| 2.302 | 1.455| 1.14E-01|
| ARIC           | Aβ42      | Plasma | 100+200  | 62 | Reference |
| *Meta*         | Aβ42      | Plasma | 111+222  | 1462| 0.619 | 0.569| 2.77E-01|
| *Meta*         | Aβ42      | Plasma | 1XY+2XY  | 1821| 0.509 | 0.553| 3.57E-01|
| ADNI-1         | Tau       | CSF    | 111+222  | 105| 0.041 | 0.072| 5.70E-01|
| ADNI-1         | Tau       | CSF    | 1XY+2XY  | 142| 0.030 | 0.066| 6.50E-01|
| ADNI-1         | Tau       | CSF    | 100+200  | 30 | Reference |
| ADNI-2/GO      | Tau       | CSF    | 111+222  | 84 | 0.107 | 0.092| 2.50E-01|
| ADNI-2/GO      | Tau       | CSF    | 1XY+2XY  | 111| 0.121 | 0.095| 2.04E-01|
| ADNI-2/GO      | Tau       | CSF    | 100+200  | 26 | Reference |
| *Meta*         | Tau       | CSF    | 111+222  | 189| 0.066 | 0.057| 2.46E-01|
| *Meta*         | Tau       | CSF    | 1XY+2XY  | 253| 0.060 | 0.054| 2.70E-01|
| ADNI-1         | Tau       | Plasma | 111+222  | 156| 0.030 | 0.085| 7.26E-01|
| ADNI-1         | Tau       | Plasma | 1XY+2XY  | 204| 0.063 | 0.098| 5.18E-01|
| FHS_C1         | Tau       | Plasma | 111+222  | 9  | 0.075 | 0.288| 8.02E-01|
| FHS_C1         | Tau       | Plasma | 1XY+2XY  | 14 | 0.000 | 0.342| 1.00E+00|
Genotype denotes the major allele homozygote for all three SNPs, i.e., rs429358_TT, rs2075650_AA, and rs12721046_CC (2) and all genotypes of rs2075650 (X) and rs12721046 (Y), except major allele homozygote of both. Meta shows the results of meta-analysis. Meta-analysis field was shown for consistency for each biomarker even if the analysis was performed in one study only. Column “Genotype” shows compound genotypes encoded by triples of numbers and X and Y letters. Numbers show the counts of minor alleles (i.e., 0, 1, 2) in rs429358_T/c, rs2075650_A/g or rs12721046_G/a SNP, in that order. The upper/lower case denotes here major/minor allele. The most frequent 000 genotype denotes the major allele homozygote for all three SNPs, i.e., rs429358_TT, rs2075650_AA, and rs12721046_GG. The 100+200 genotype indicates rs429358_Tc, rs2075650_AA, rs12721046_CC (100) and rs429358_Tc, rs2075650_CC, rs12721046_TT (222). Letters X and Y indicate aggregation of minor alleles of rs2075650 and rs12721046, respectively. The 1XY genotype indicates rs429358_Tc, rs2075650_AA, rs12721046_GG (100) and rs429358_Tc, rs2075650_Ag, rs12721046_Ga (111) and rs429358_Tc, rs2075650_Ga, rs12721046_CC (222). Letters X and Y indicate aggregation of minor alleles of rs2075650 and rs12721046, respectively. The 1XY+2XY genotype aggregates rs429358_Tc (1) and rs429358_CC (2) and all genotypes of rs2075650 (X) and rs12721046 (Y), except major allele homozygote of both SNPs, rs2075650_AA and rs12721046_GG (00), because it is included in the 100+200 genotype. Column “SE” shows standard error. A gamma general linear model with a log link function was used for all biomarkers except Aβ42 measured in plasma.

Supplementary Table 7. Comparative analysis of the associations of the selected compound genotypes with Alzheimer’s disease (AD) Aβ42 and tau biomarkers with carriers of the ε2 allele excluded.

| Study | Biomarker | Source | Genotype | N  | Beta  | SE  | P value |
|-------|-----------|--------|----------|----|-------|-----|---------|
| ADNI-1| Aβ42      | CSF    | 111+222  | 97 | –0.60 | 0.082 | 4.67E-01|
| ADNI-1| Aβ42      | CSF    | 1XY+2XY  | 134| –0.099| 0.078 | 2.06E-01|
| ADNI-1| Aβ42      | CSF    | 100+200  | 31 | Reference |
| ADNI-2/GO| Aβ42  | CSF    | 111+222  | 75 | –0.054| 0.094 | 5.67E-01|
| ADNI-2/GO| Aβ42  | CSF    | 1XY+2XY  | 102| –0.091| 0.096 | 3.46E-01|
| ADNI-2/GO| Aβ42  | CSF    | 100+200  | 25 | Reference |
| Meta  | Aβ42      | CSF    | 111+222  | 172| –0.057| 0.062 | 3.54E-01|
| Meta  | Aβ42      | CSF    | 1XY+2XY  | 236| –0.096| 0.061 | 1.14E-01|
| ADNI-1| Aβ42      | Plasma | 111+222  | 187| –1.291| 1.661 | 4.38E-01|
| ADNI-1| Aβ42      | Plasma | 1XY+2XY  | 241| –1.261| 1.685 | 4.55E-01|
| ADNI-1| Aβ42      | Plasma | 100+200  | 50 | Reference |
| FHS_C1| Aβ42      | Plasma | 111+222  | 43 | 0.658 | 2.716 | 8.09E-01|
| FHS_C1| Aβ42      | Plasma | 1XY+2XY  | 70 | 0.840 | 2.261 | 7.11E-01|
| FHS_C1| Aβ42      | Plasma | 100+200  | 21 | Reference |
| FHS_C2| Aβ42      | Plasma | 111+222  | 362| 0.334 | 1.035 | 7.47E-01|
| FHS_C2| Aβ42      | Plasma | 1XY+2XY  | 465| –0.067| 0.981 | 9.46E-01|
| FHS_C2| Aβ42      | Plasma | 100+200  | 116| Reference |
| FHS_C3| Aβ42      | Plasma | 111+222  | 460| 0.870 | 1.068 | 4.16E-01|
| FHS_C3| Aβ42      | Plasma | 1XY+2XY  | 561| 1.088 | 1.063 | 3.06E-01|
| FHS_C3| Aβ42      | Plasma | 100+200  | 113| Reference |
| ARIC  | Aβ42      | Plasma | 111+222  | 273| 2.587 | 1.474 | 8.02E-02|
| ARIC  | Aβ42      | Plasma | 1XY+2XY  | 338| 2.458 | 1.476 | 9.66E-02|
| Study    | Biomarker | Location | Genotype | Mean | SE     | P Value |
|----------|-----------|----------|----------|------|--------|---------|
| ARIC     | Aβ42      | Plasma   | 100+200  | 59   | Reference |
| Meta     | Aβ42      | Plasma   | 111+222  | 1325 | 0.682  | 0.601   | 2.57E-01 |
| Meta     | Aβ42      | Plasma   | 1XY+2XY  | 1675 | 0.594  | 0.584   | 3.09E-01 |
| ADNI-1   | Tau       | CSF      | 111+222  | 100  | 0.036  | 0.071   | 6.16E-01 |
| ADNI-1   | Tau       | CSF      | 1XY+2XY  | 137  | 0.023  | 0.065   | 7.22E-01 |
| ADNI-1   | Tau       | CSF      | 100+200  | 359  | Reference |
| ADNI-2/GO| Tau       | CSF      | 111+222  | 82   | 0.116  | 0.092   | 2.11E-01 |
| ADNI-2/GO| Tau       | CSF      | 1XY+2XY  | 109  | 0.128  | 0.094   | 1.79E-01 |
| ADNI-2/GO| Tau       | CSF      | 100+200  | 26   | Reference |
| Meta     | Tau       | CSF      | 111+222  | 182  | 0.066  | 0.056   | 2.43E-01 |
| Meta     | Tau       | CSF      | 1XY+2XY  | 246  | 0.057  | 0.054   | 2.89E-01 |
| ADNI-1   | Tau       | Plasma   | 111+222  | 150  | 0.033  | 0.085   | 6.99E-01 |
| ADNI-1   | Tau       | Plasma   | 1XY+2XY  | 197  | 0.067  | 0.099   | 4.97E-01 |
| ADNI-1   | Tau       | Plasma   | 100+200  | 38   | Reference |
| FHS_C1   | Tau       | Plasma   | 111+222  | 8    | 0.079  | 0.299   | 7.98E-01 |
| FHS_C1   | Tau       | Plasma   | 1XY+2XY  | 13   | 0.001  | 0.259   | 9.97E-01 |
| FHS_C1   | Tau       | Plasma   | 100+200  | 5    | Reference |
| FHS_C2   | Tau       | Plasma   | 111+222  | 329  | 0.022  | 0.037   | 5.49E-01 |
| FHS_C2   | Tau       | Plasma   | 1XY+2XY  | 417  | 0.050  | 0.034   | 1.46E-01 |
| FHS_C2   | Tau       | Plasma   | 100+200  | 104  | Reference |
| FHS_C3   | Tau       | Plasma   | 111+222  | 459  | 0.031  | 0.029   | 2.93E-01 |
| FHS_C3   | Tau       | Plasma   | 1XY+2XY  | 560  | 0.038  | 0.028   | 1.84E-01 |
| FHS_C3   | Tau       | Plasma   | 100+200  | 113  | Reference |
| Meta     | Tau       | Plasma   | 111+222  | 946  | 0.028  | 0.022   | 2.03E-01 |
| Meta     | Tau       | Plasma   | 1XY+2XY  | 1187 | 0.044  | 0.021   | 4.06E-02 |
| Meta     | Tau       | Plasma   | 100+200  | 260  | Reference |

ARIC is the Atherosclerosis Risk in Communities Study. FHS_C1, FHS_C2, and FHS_C3 denote the Framingham Heart Study parental, offspring, and grandchildren cohorts, respectively. ADNI-1 and ADNI-2/GO denote the Alzheimer’s disease Neuroimaging Initiative initial and extended cohorts, respectively. Meta shows the results of meta-analysis. Meta-analysis field was shown for consistency for each biomarker even if the analysis was performed in one study only. Column “Genotype” shows compound genotypes encoded by triples of numbers and X and Y letters. Numbers show the counts of minor alleles (i.e., 0, 1, 2) in rs429358_T/c, rs2075650_A/g or rs12721046_G/a SNP, in that order. The upper/lower case denotes here major/minor allele. The most frequent 000 genotype denotes the major allele homozygote for all three SNPs, i.e., rs429358_TT, rs2075650-AA, rs12721046-GG. The 100+200 genotype indicates rs429358_Tc, rs2075650-AA, rs12721046_GG (100) and rs429358_cc, rs2075650-AA, rs12721046_GG (200). The 111+222 genotype denotes rs429358_Tc, rs2075650_Ag, rs12721046_Ga (111) and rs429358_cc, rs2075650_gg, rs12721046_aa (222). Letters X and Y indicate aggregation of minor alleles of rs2075650 and rs12721046, respectively. The 1XY+2XY genotype aggregates rs429358_Tc (1) and rs429358_cc (2) and all genotypes of rs2075650 (X) and rs12721046 (Y), except major allele homozygote of both SNPs, rs2075650_AA and rs12721046_GG (00), because it is included in the 100+200 genotype. Column “SE” shows standard error. A gamma general linear model with a log link function was used for all biomarkers except Aβ42 measured in plasma.