

**Supplemental TABLE 1.** Results of the Cox regression models: Derivation dataset.

|   | HR of predictors        |                   |                   |   |      |      |                | C    | p-value             |
|---|-------------------------|-------------------|-------------------|---|------|------|----------------|------|---------------------|
|   | PES of A $\beta$ -ADCRP | PES of ADCRP      | FAQ               | APOE (Ref.: no $\epsilon 4$ allele present) | MMSE | Age  | Sex (Ref. = F) |      |                     |
| <b>Amyloid PET model</b>  | 3.12 <sup>†</sup>       | -                 | -                 | -   | -    | 1.05 | 1.09           | 0.79 | 1x10 <sup>-8</sup>  |
| <b><sup>18</sup>F-FDG PET model</b>                             | -                       | 2.86 <sup>†</sup> | -                 | -   | -    | 1.00 | 1.14           | 0.76 | 8x10 <sup>-8</sup>  |
| <b>Non-imaging model</b>  | -                       | -                 | 2.31 <sup>†</sup> | 1.63*                                       | 1.38 | 1.00 | 1.02           | 0.80 | 4x10 <sup>-8</sup>  |
| <b><sup>18</sup>F-FDG PET + Amyloid PET</b>                     | 2.66 <sup>†</sup>       | 2.49 <sup>†</sup> | -                 | -   | -    | 1.01 | 1.07           | 0.84 | 2x10 <sup>-12</sup> |
| <b>Amyloid PET + non-imaging model</b>                          | 2.56 <sup>†</sup>       | -                 | 2.16 <sup>†</sup> | 1.34  | 1.36 | 1.01 | 1.06           | 0.85 | 1x10 <sup>-12</sup> |
| <b><sup>18</sup>F-FDG PET + non-imaging model</b>               | -                       | 2.37 <sup>†</sup> | 2.28 <sup>†</sup> | 1.50  | 1.24 | 1.00 | 1.01           | 0.85 | 6x10 <sup>-12</sup> |
| <b>Amyloid PET + <sup>18</sup>F-FDG PET + non-imaging model</b> | 2.34 <sup>†</sup>       | 2.22 <sup>†</sup> | 2.16 <sup>†</sup> | 1.26  | 1.24 | 1.01 | 1.04           | 0.87 | 6x10 <sup>-15</sup> |

HR, Hazard ratio. C, Harrell's concordance. F, female. \* Significant predictor ( $p < 0.05$ ). <sup>†</sup> Significant predictor ( $p < 0.001$ ).