

1269 **9. Supplementary information**

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1271 **Table S1:** Associations of locus coeruleus intensity and regional tau burden

| Region of interest ¹ | <i>rho</i> | <i>p</i> |
|---------------------------------|------------|----------|
| bankssts | -0.688 | 0.004 |
| transversetemporal | -0.656 | 0.007 |
| postcentral | -0.641 | 0.009 |
| inferiorparietal | -0.641 | 0.009 |
| inferiortemporal | -0.638 | 0.009 |
| cuneus | -0.624 | 0.012 |
| fusiform | -0.609 | 0.014 |
| parstriangularis | -0.582 | 0.02 |
| pericalcarine | -0.553 | 0.029 |
| posteriorcingulate | -0.544 | 0.032 |
| precuneus | -0.532 | 0.036 |
| caudalmiddlefrontal | -0.526 | 0.038 |
| entorhinal | -0.524 | 0.04 |
| lingual | -0.509 | 0.046 |
| middletemporal | -0.509 | 0.046 |
| isthmuscingulate | -0.503 | 0.049 |
| temporalpole | -0.497 | 0.052 |
| lateraloccipital | -0.494 | 0.054 |
| caudalanteriorcingulate | -0.488 | 0.057 |
| rostralanteriorcingulate | -0.476 | 0.064 |
| superiorparietal | -0.459 | 0.076 |
| paracentral | -0.459 | 0.076 |
| parahippocampal | -0.456 | 0.078 |
| insula | -0.441 | 0.089 |
| lateralorbitofrontal | -0.435 | 0.094 |
| parsorbitalis | -0.418 | 0.109 |
| frontalpole | -0.409 | 0.117 |
| parsopercularis | -0.403 | 0.123 |
| precentral | -0.382 | 0.145 |
| medialorbitofrontal | -0.376 | 0.151 |
| superiortemporal | -0.365 | 0.165 |
| superiorfrontal | -0.312 | 0.239 |
| rostralmiddlefrontal | -0.282 | 0.288 |
| supramarginal | -0.232 | 0.385 |

1272 Note: ¹Parcellation based on Desikan et al., (2006).

1273 Tau data was averaged across hemispheres before analysis (see *Material and methods*).

1274 *Rho* and *p* values are based on non-parametric Spearman's correlations (*n* = 16).

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1276 **Table S2:** Associations of locus coeruleus intensity and cognitive performance

| Cognitive task | <i>rho</i> | <i>p</i> |
|-------------------------|------------|----------|
| Craft Story | 0.62 | 0.008 |
| Complex Figure Delay | 0.589 | 0.013 |
| Trails B | 0.498 | 0.042 |
| Number Span Backward | 0.459 | 0.064 |
| SEVLT_total (trial 1–5) | 0.447 | 0.072 |
| CASI | 0.286 | 0.265 |
| SEVLT long delay | 0.006 | 0.981 |
| MoCA | -0.02 | 0.94 |
| Digit Symbol | -0.16 | 0.539 |
| CDR | -0.405 | 0.107 |

1277 Note: Rho and p values are based on non-parametric Spearman's correlations (n = 17). See
1278 *Material and methods* for a description of the cognitive tasks.

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