Supplementary Information

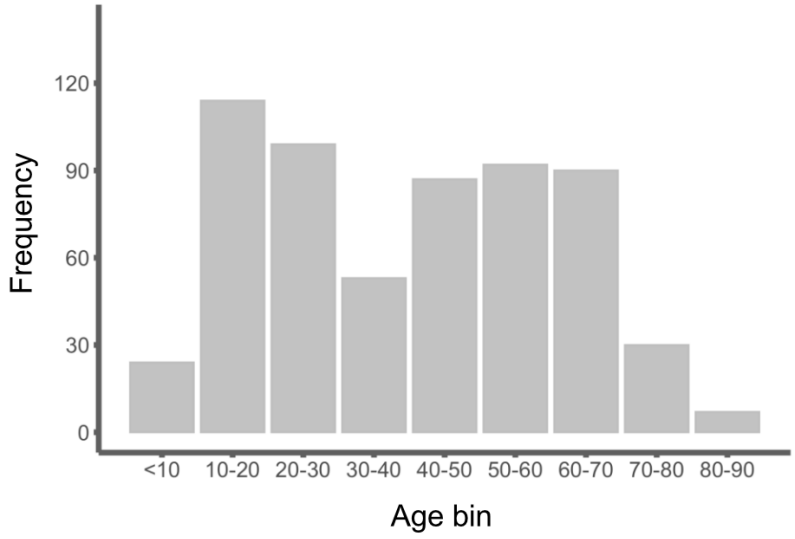

Figure S1. Age distribution.

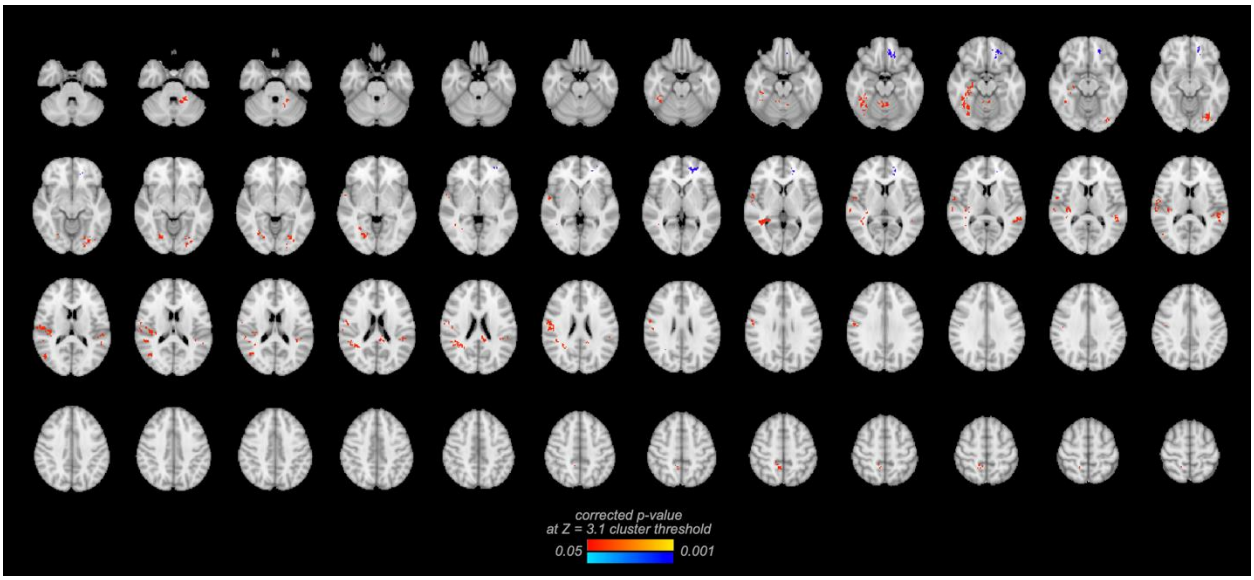

Figure S2. The whole-brain map of LC seed-based functional connectivity showing the quadratic effects of age.

Group-level LC connectivity analysis irrespective of age.

We performed a group level analysis including the same nuisance regressor (i.e., gender) to see the LC connectivity pattern without age consideration. As a result, we found significant LC connectivity to the cerebellum, brainstem, midbrain, thalamus, and posterior cingulate gyrus. This finding is consistent with previous findings [1-4]. It is noteworthy that the significant brain regions of the group-

level analysis are quite different from that of quadratic model, suggesting that the LC connectivity change differently as a function with age that is not captured by the group-level grand mean analysis.

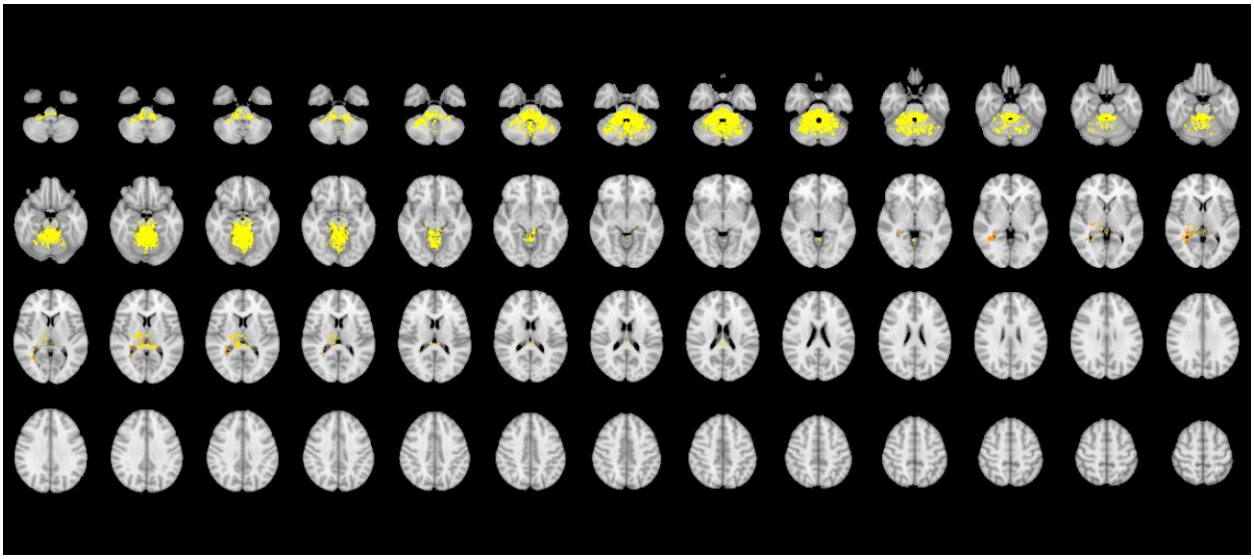

Figure S3. Group-level mean LC connectivity without age consideration.

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