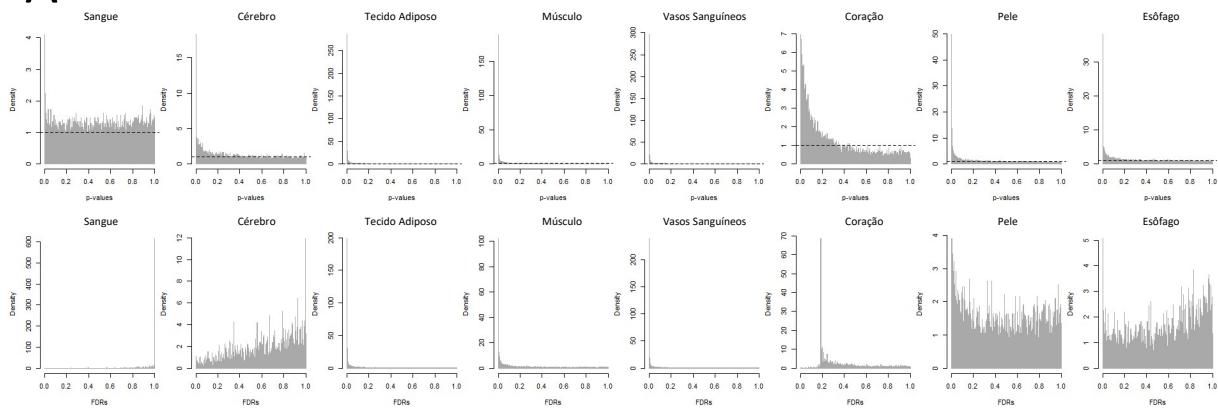
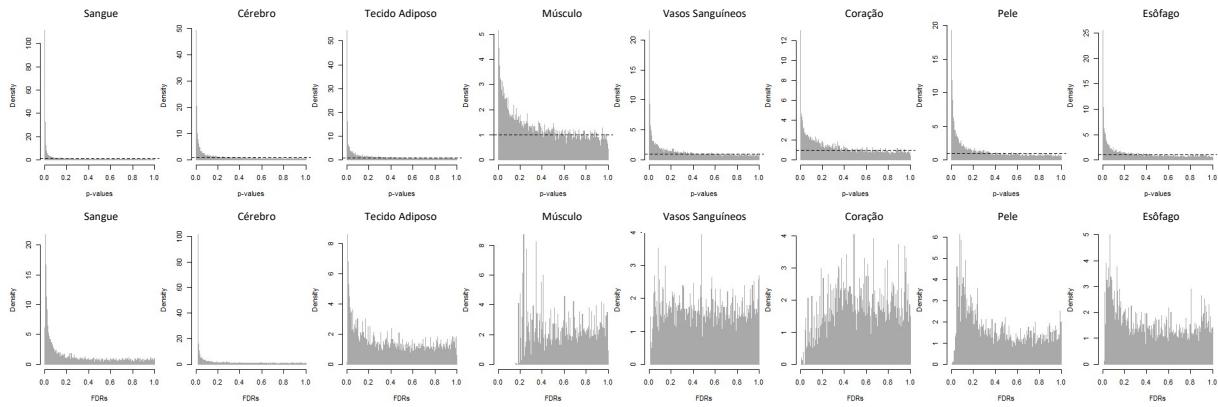


A

Histograma de densidade dos p-valores não ajustados e ajustados (FDRs) da análise de expressão diferencial

**B**

Histograma de densidade dos p-valores não ajustados e ajustados (FDRs) da análise de conectividade diferencial

**C**

Histograma de densidade dos p-valores não ajustados e ajustados (FDRs) da análise de eigenconectividade diferencial

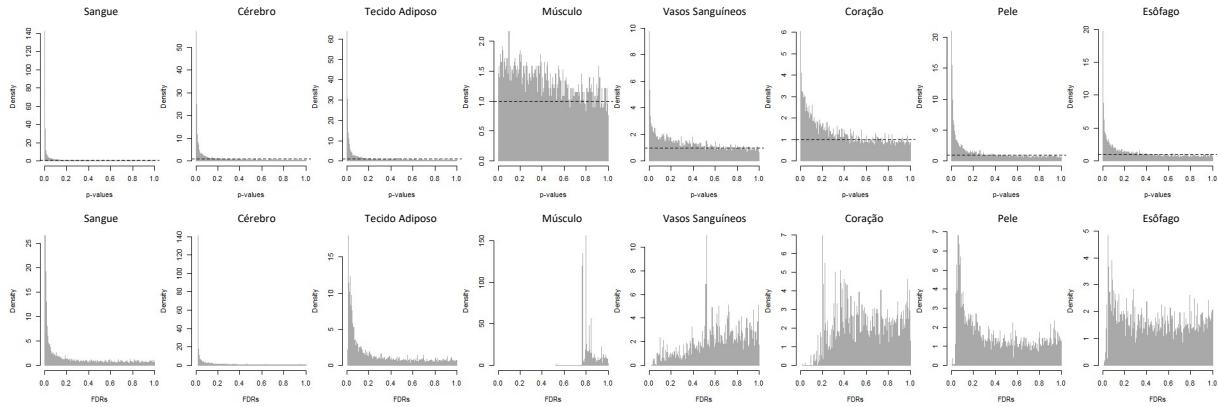
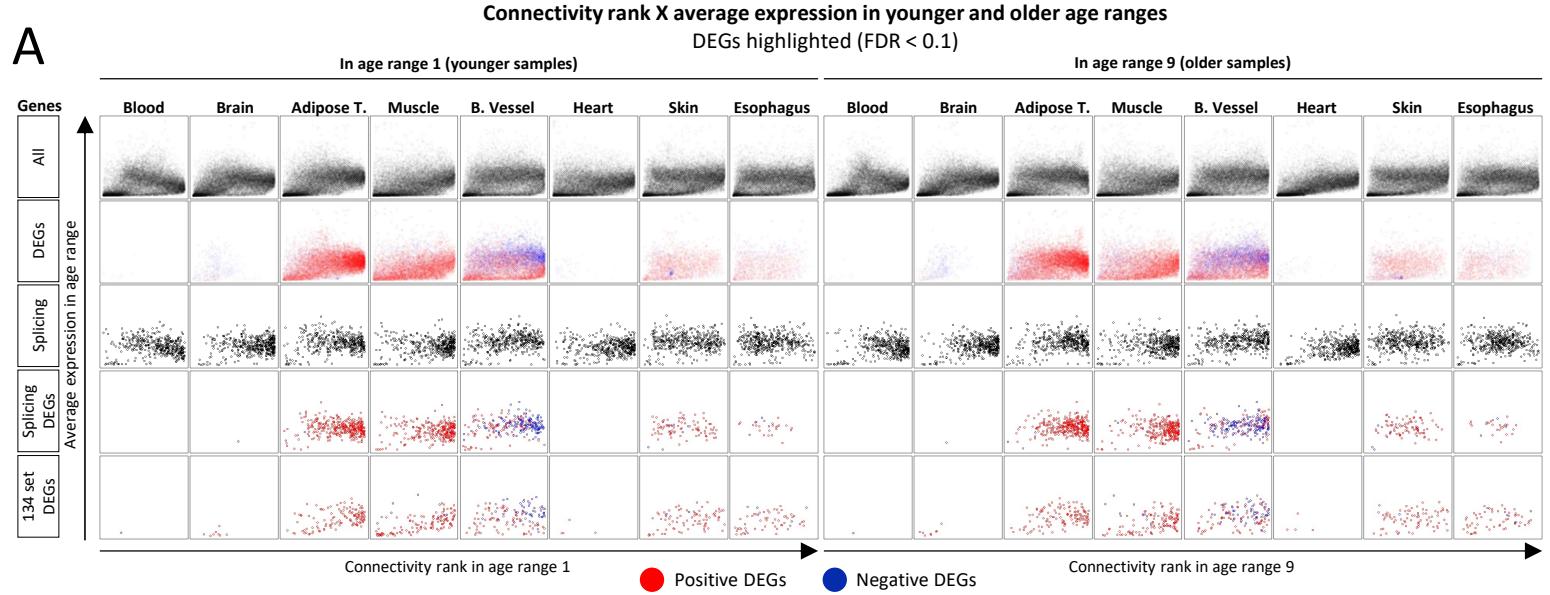
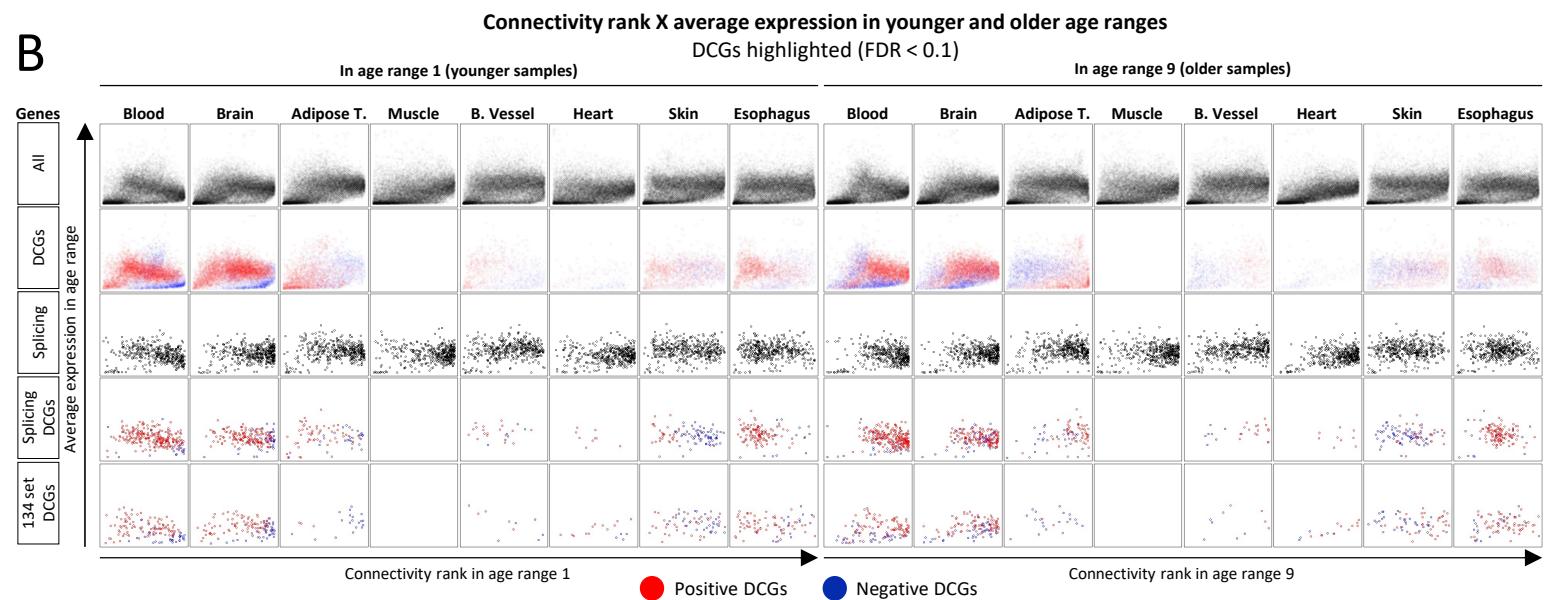


Figura S1. Histograma de densidade dos p-valores e p-valores ajustados (FDRs) das análises de regressão em cada tecido. A) Distribuição dos p-valores e p-valores ajustados (FDRs) na análise de expressão diferencial. B) Distribuição dos p-valores e p-valores ajustados (FDRs) na análise de conectividade diferencial. C) Distribuição dos p-valores e p-valores ajustados (FDRs) na análise de eigenconectividade diferencial. As linhas horizontais tracejadas nos histogramas de densidade de p-valor bruto representam o que seria a distribuição esperada dos p-valores se a hipótese nula de nenhuma alteração fosse verdadeira para todos os genes.

A



B



C

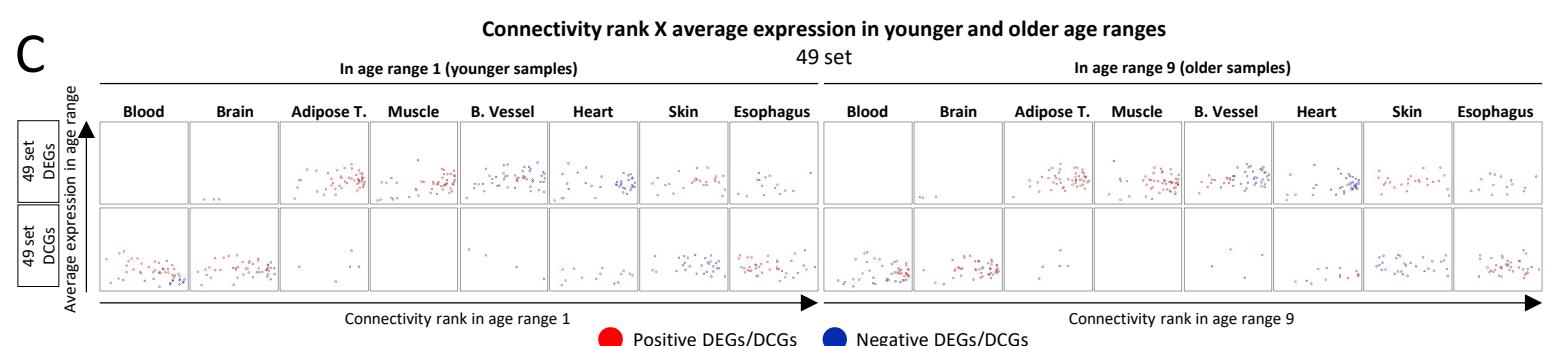
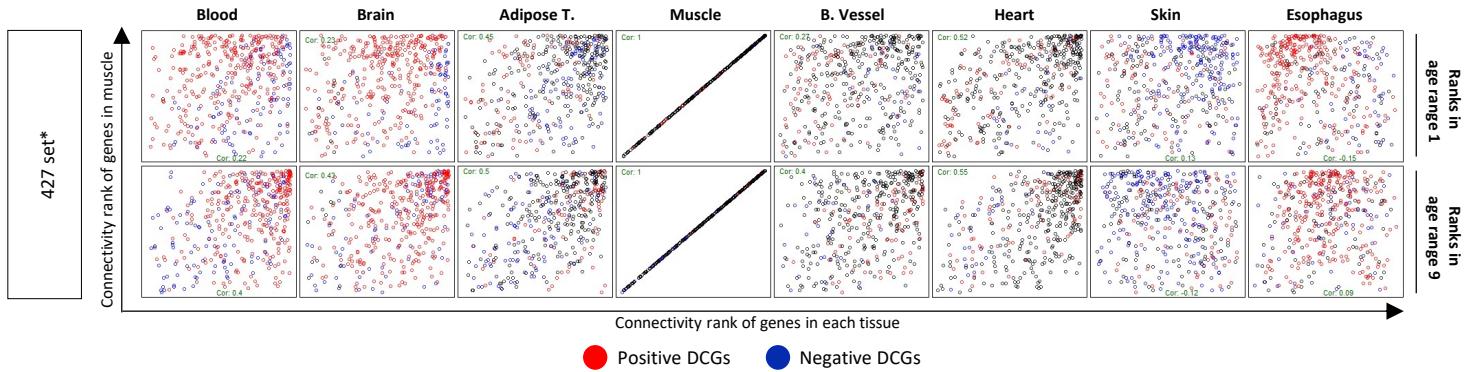
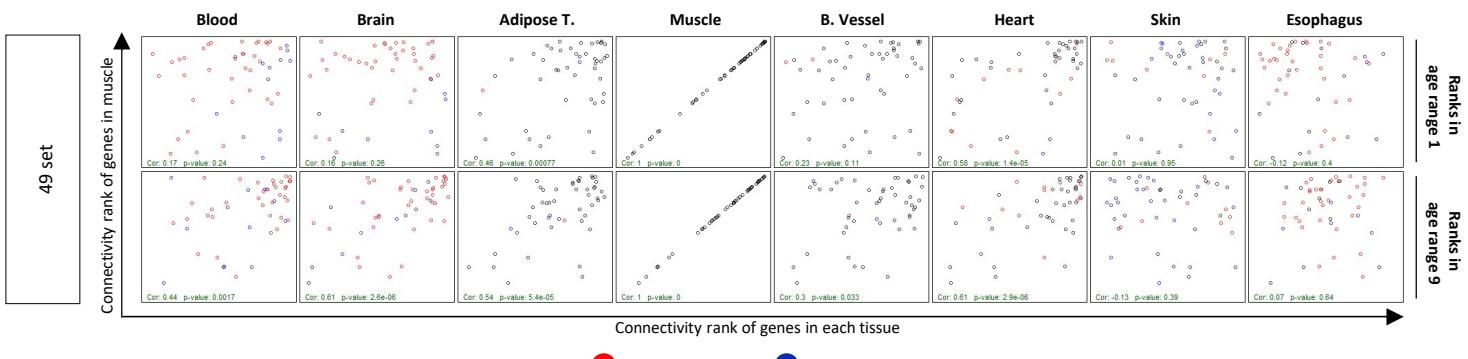


Figure S3. Distribution of positive and negative slopes among DEGs and DCGs. A) Connectivity ranks X average expression of different sets of genes in age range 1 and age range 9, with DEGs highlighted with FDR < 0.1. B) Connectivity ranks X average expression of different sets of genes in age range 1 and age range 9, with DCGs highlighted with FDR < 0.1. C) Connectivity ranks X average expression of the 49 set genes in age range 1 and age range 9, with DEGs and DCGs highlighted with FDR < 0.1 for all tissues except heart, which used an FDR < 0.25. Figure S3C only contains the charts for the 49 set because the other charts for the cases when other tissues are FDR < 0.1 or FDR < 0.25 are already included in Figure 5, Figure S3A and S3B.



*Correlations and correlation p-values of the 427 set

Blood	Brain	Adipose T.	Muscle	B. Vessel	Heart	Skin	Esophagus	Age Range 1
Cor: 0.22 P-value: 2.7e-06	Cor: 0.23 P-value: 9.9e-07	Cor: 0.45 P-value: 3.4e-23	Cor: 1 P-value: 0	Cor: 0.27 P-value: 1.3e-08	Cor: 0.52 P-value: 9.6e-31	Cor: 0.13 P-value: 0.0055	Cor: -0.15 P-value: 0.0016	Age Range 1
Cor: 0.4 P-value: 4.7e-18	Cor: 0.43 P-value: 2.7e-20	Cor: 0.5 P-value: 8e-29	Cor: 1 P-value: 0	Cor: 0.4 P-value: 3.5e-18	Cor: 0.55 P-value: 3.1e-35	Cor: -0.12 P-value: 0.014	Cor: 0.09 P-value: 0.06	Age Range 2

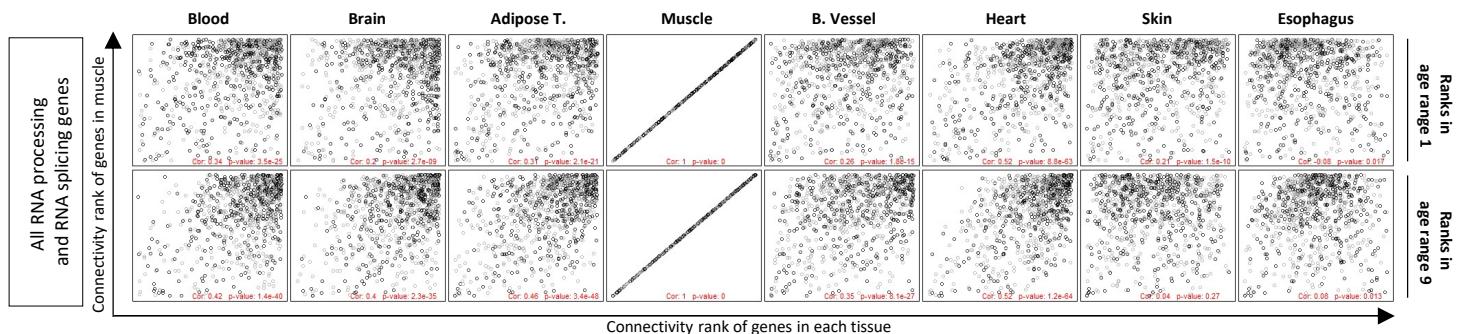


Figure S4. Connectivity ranks of genes in each tissue X connectivity rank of genes in muscle. The connectivity rank of genes in each tissue were plotted against the connectivity rank of genes in muscle in order to observe if there is convergence of the connectivity ranks with aging. Muscle was chosen as a reference because it does not have any DCG at FDR < 0.1. Plots presented refer to the 49 set, 427 set and all RNA processing and RNA splicing genes. Correlation and correlation p-values for the 427 set plot are displayed in the table under it due to lack of space in the chart.

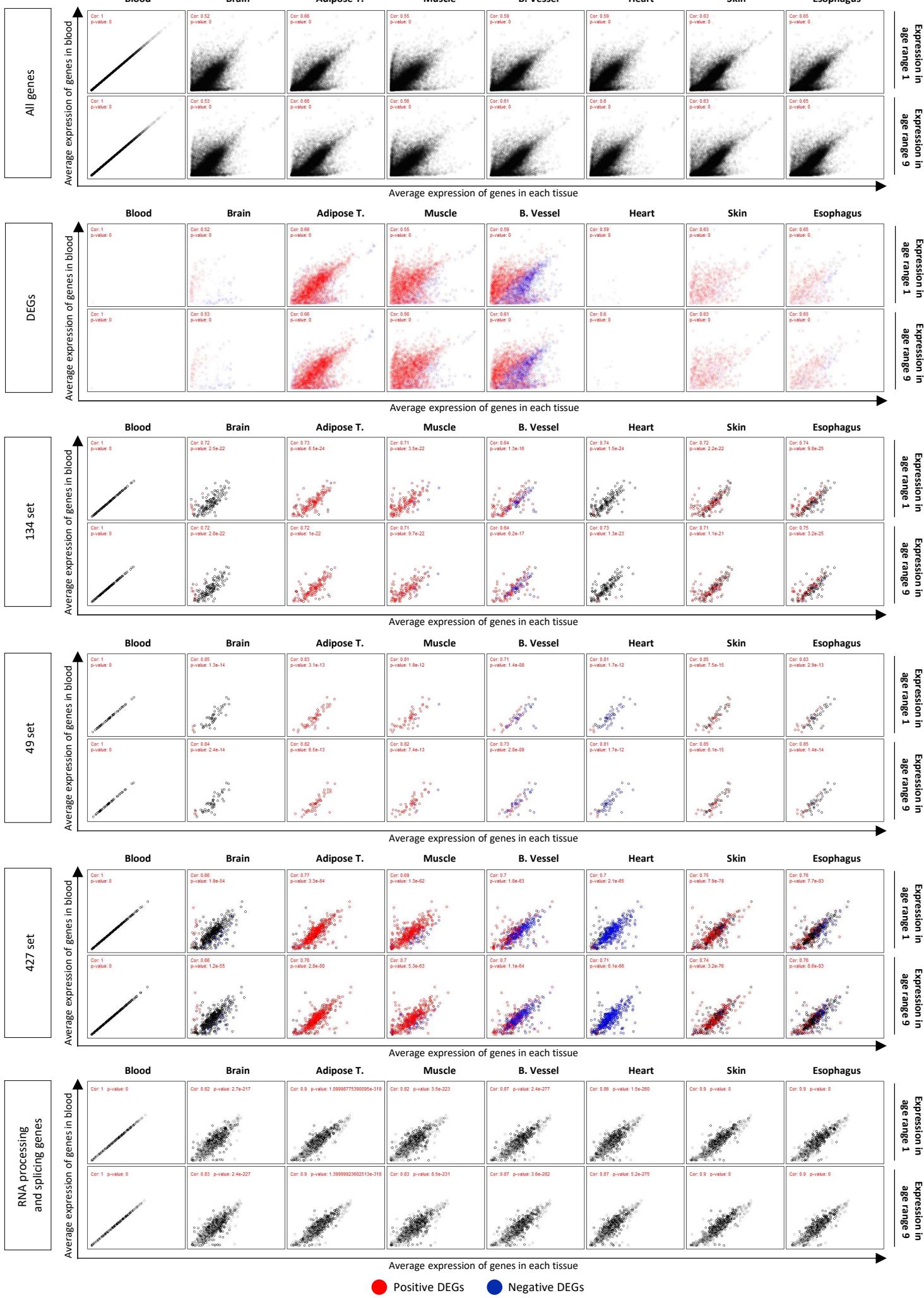


Figure S5. Average expression of genes in each tissue X average expression of genes in blood. The average expression of genes in each tissue was plotted against the average expression of genes in blood in order to observe if there is convergence of the expression with aging. Blood was chosen as a reference because it has a minimal amount of DEGs at FDR < 0.1. Plots presented refer to all genes, all DEGs, the 134 set, the 49 set, 427 set and all RNA processing and RNA splicing genes.

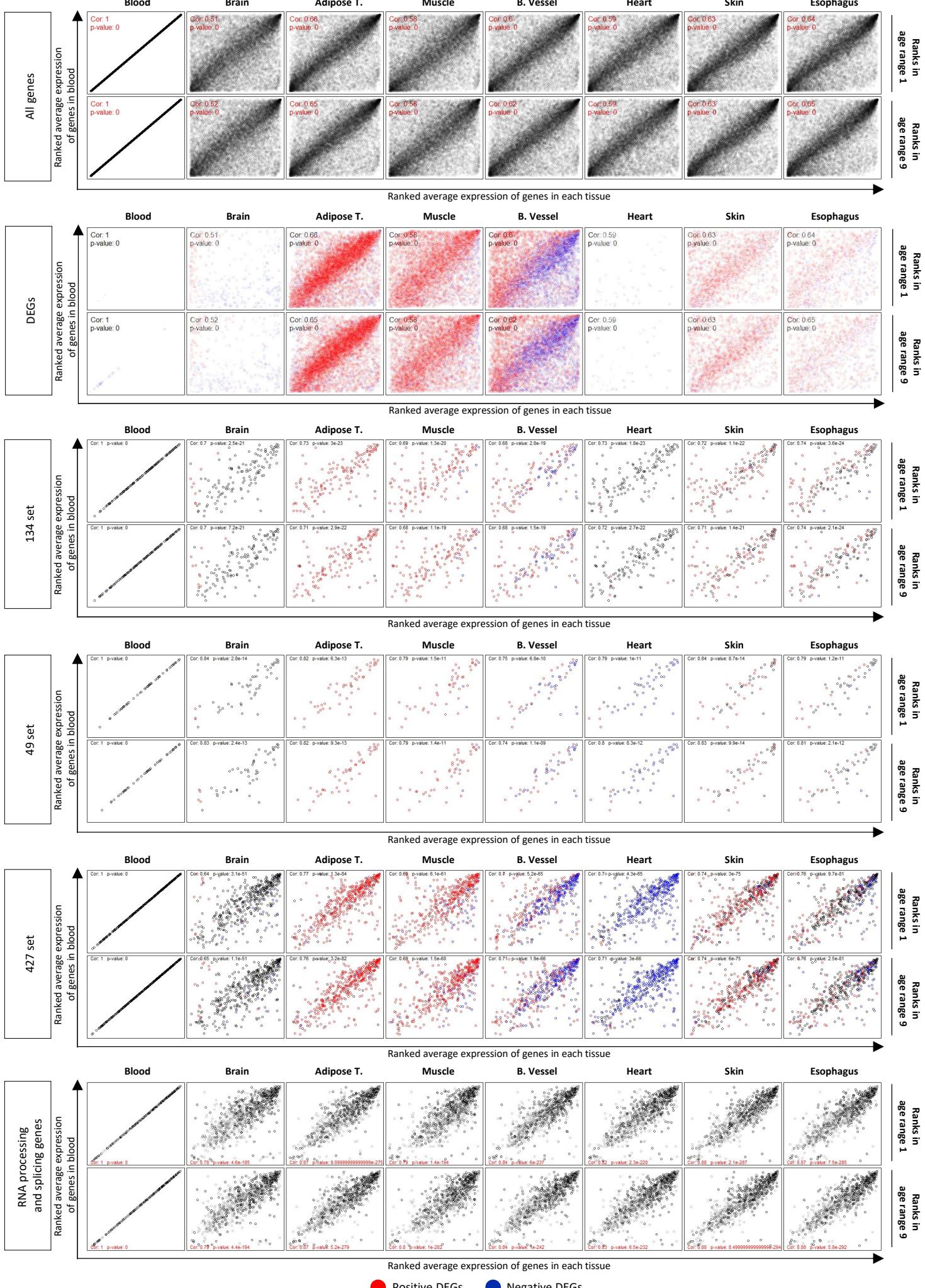


Figure S6. Ranked average expression of genes in each tissue X ranked average expression of genes in blood. The ranked average expression of genes in each tissue was plotted against the ranked average expression of genes in blood in order to observe if there is convergence of the expression with aging. Blood was chosen as a reference because it has a minimal amount of DEGs at FDR < 0.1. Plots presented refer to all genes, all DEGs, the 134 set, the 49 set, 427 set and all RNA processing and RNA splicing genes.