

# Loss of coordination between basic cellular processes in human aging

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**Supplementary Table 1:** Number of samples per tissue and age group for computation of predictability within age group (Figure 2).

| <b>Tissue</b>           | <b>20-29</b> | <b>30-39</b> | <b>40-49</b> | <b>50-59</b> | <b>60-69</b> | <b>70-79</b> |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Adipose – Visceral      | 42           | 42           | 42           | 42           | 42           | 16           |
| Artery - Tibial         | 54           | 54           | 54           | 54           | 54           | 18           |
| Blood                   | 62           | 62           | 62           | 62           | 62           | 21           |
| Brain                   | 46           | 42           | 49           | 49           | 49           | 48           |
| Breast – Mammary Tissue | 36           | 36           | 36           | 36           | 36           | 15           |
| Esophagus - Mucosa      | 51           | 51           | 51           | 51           | 51           | 12           |
| Testis                  | 30           | 30           | 30           | 30           | 30           | -            |
| Thyroid                 | 44           | 44           | 44           | 44           | 44           | 20           |

**Supplementary Table 2:** Number of samples per tissue and age group, after randomly selecting similar sample numbers per tissue and age group (Figure S6).

| <b>Tissue</b>           | <b>20-29</b> | <b>30-39</b> | <b>40-49</b> | <b>50-59</b> | <b>60-69</b> | <b>70-79</b> |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Adipose - Subcutaneous  | 30           | 30           | 30           | 30           | 30           | 18           |
| Adipose – Visceral      | 30           | 30           | 30           | 30           | 30           | 16           |
| Artery - Tibial         | 30           | 30           | 30           | 30           | 30           | 18           |
| Blood                   | 30           | 30           | 30           | 30           | 30           | 21           |
| Brain                   | 30           | 30           | 30           | 30           | 30           | 48           |
| Breast – Mammary Tissue | 30           | 30           | 30           | 30           | 30           | 15           |
| Colon - Transverse      | 30           | 30           | 30           | 30           | 30           | -            |
| Esophagus - Mucosa      | 30           | 30           | 30           | 30           | 30           | 12           |
| Esophagus - Muscularis  | 30           | 30           | 30           | 30           | 30           | -            |
| Lung                    | 30           | 30           | 30           | 30           | 30           | 17           |
| Muscle - Skeletal       | 30           | 30           | 30           | 30           | 30           | 26           |
| Nerve - Tibial          | 30           | 30           | 30           | 30           | 30           | 18           |
| Skin – Not sun exposed  | 30           | 30           | 30           | 30           | 30           | 22           |
| Skin – Sun exposed      | 30           | 30           | 30           | 30           | 30           | 26           |
| Testis                  | 30           | 30           | 30           | 30           | 30           | -            |
| Thyroid                 | 30           | 30           | 30           | 30           | 30           | 20           |

**Supplementary Table 3:** Number of genes for which predictability trends with age were computed (Figure 2).

| <b>Tissue</b>           | <b># genes</b> |
|-------------------------|----------------|
| Adipose – Visceral      | 4691           |
| Artery - Tibial         | 3964           |
| Blood                   | 4768           |
| Brain                   | 3728           |
| Breast – Mammary Tissue | 4709           |
| Esophagus - Mucosa      | 5830           |
| Testis                  | 3291           |
| Thyroid                 | 4984           |

**Supplementary Table 4:** Number of genes for which predictability trends with age were computed, after randomly selecting similar sample numbers per tissue and age group (Figure S6).

| <b>Tissue</b>           | <b># genes</b> |
|-------------------------|----------------|
| Adipose - Subcutaneous  | 4569           |
| Adipose – Visceral      | 4593           |
| Artery – Tibial         | 4008           |
| Blood                   | 4641           |
| Brain                   | 3708           |
| Breast – Mammary Tissue | 4873           |
| Colon – Transverse      | 2407           |
| Esophagus – Mucosa      | 5890           |
| Esophagus - Muscularis  | 4149           |
| Lung                    | 5120           |
| Muscle – Skeletal       | 2726           |
| Nerve – Tibial          | 3854           |
| Skin – Not sun exposed  | 5038           |
| Skin – Sun exposed      | 5498           |
| Testis                  | 3111           |
| Thyroid                 | 5179           |