

## SUPPLEMENTARY TABLES

**Supplementary Table 1. Age ranges of samples from healthy individuals, for data plotted in Figures 1, 2.**

|               | Min  | Max | Median |
|---------------|------|-----|--------|
| <b>Blood</b>  | 1    | 17  | 4.33   |
| <b>Saliva</b> | 3    | 17  | 4      |
| <b>Buccal</b> | 1    | 18  | 11     |
| <b>Brain</b>  | 0.08 | 18  | 13     |

**Supplementary Table 2. P-values obtained from pairwise comparisons of age acceleration using t tests with non-pooled SD.**

|               | CTRL    | RTM     | ATRT   | EPN     | GLIOMA |
|---------------|---------|---------|--------|---------|--------|
| <b>RTM</b>    | 1.1e-05 | -       | -      | -       | -      |
| <b>ATRT</b>   | 1.3e-13 | 1.9e-05 | -      | -       | -      |
| <b>EPN</b>    | <2e-16  | 1.5e-14 | 0.0032 | -       | -      |
| <b>GLIOMA</b> | <2e-16  | 2.3e-06 | 0.2759 | 5.5e-12 | -      |
| <b>MB</b>     | <2e-16  | 9.8e-10 | 0.5542 | 8.5e-05 | 0.0017 |

P value adjustment method: BH.

**Supplementary Table 3. Number of paediatric brain tumour samples in boxplots in Figure 5.**

| Dataset                  | Sample type              | Number of samples   |
|--------------------------|--------------------------|---------------------|
| <b>GSE90496</b>          | ATRT TYR                 | 30                  |
|                          | ATRT MYC                 | 22                  |
|                          | ATRT SHH                 | 39                  |
| <b>Validation cohort</b> | ATRT TYR                 | 18                  |
|                          | ATRT MYC                 | 9                   |
|                          | ATRT SHH                 | 22                  |
| <b>GSE90496</b>          | Ependymoma YAP           | 10                  |
|                          | Ependymoma PF B          | 11                  |
|                          | Ependymoma RELA          | 52                  |
|                          | Ependymoma PF A          | 84                  |
| <b>Validation cohort</b> | Ependymoma RELA          | 18                  |
|                          | Ependymoma PF A          | 47                  |
| <b>GSE90496</b>          | LGG                      | 211                 |
|                          | PXA                      | 13                  |
|                          | K27                      | 40                  |
|                          | G34                      | 8                   |
|                          | GBM                      | 23                  |
|                          | <b>Validation cohort</b> | LGG                 |
| <b>Local cohort</b>      | PXA                      | 9                   |
|                          | DIPG                     | 38                  |
|                          | K27                      | 16                  |
|                          | G34                      | 9                   |
|                          | GBM                      | 26                  |
|                          | LGG                      | 73                  |
|                          | GBM                      | 13                  |
|                          | <b>GSE90496</b>          | Medulloblastoma WNT |
| Medulloblastoma SHH      | 72                       |                     |
| Medulloblastoma G4       | 122                      |                     |

|                          |                     |    |
|--------------------------|---------------------|----|
| <b>Validation cohort</b> | Medulloblastoma G3  | 77 |
|                          | Medulloblastoma WNT | 6  |
|                          | Medulloblastoma SHH | 12 |
|                          | Medulloblastoma G4  | 20 |
| <b>Local cohort</b>      | Medulloblastoma G3  | 10 |
|                          | Medulloblastoma WNT | 8  |
|                          | Medulloblastoma SHH | 6  |
|                          | Medulloblastoma G4  | 16 |
|                          | Medulloblastoma G3  | 9  |

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