

## Supplementary Information – Online Resource 1

Article: Magnetic resonance imaging characteristics of molecular subgroups in pediatric H3 K27M mutant diffuse midline glioma

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### Supplementary Table S1

Epidemiological data and tumor characteristics (grading, localization) of H3 (H3.1/H3.3) K27M mutant and H3 K27 WT pDMG (absolute and relative (%) frequencies are displayed). Statistically significant differences ( $p < .05$ ; for H3.1 vs. H3.3, H3.1 vs. WT, and H3.3 vs. WT  $p < .017$ ) are shown in boldface.

|                                     | Total<br>pDMG<br>( <i>n</i> = 68) | H3 K27M<br>( <i>n</i> = 52) | H3 K27M subgroups            |                               | H3 K27 WT<br>( <i>n</i> = 16) | <i>p</i> -value         |                         |                   |                         |                                  |
|-------------------------------------|-----------------------------------|-----------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------|-------------------------|-------------------|-------------------------|----------------------------------|
|                                     |                                   |                             | H3.1 K27M<br>( <i>n</i> = 6) | H3.3 K27M<br>( <i>n</i> = 46) |                               | H3<br>K27M<br>vs.<br>WT | H3.1<br>vs.<br>H3.3     | H3.1<br>vs.<br>WT | H3.3<br>vs.<br>WT       | H3.1<br>vs.<br>H3.3<br>vs.<br>WT |
| Age (years), median [IQR]           | 10.2 [6.3-13.1]                   | 10.2 [6.9-13.0]             | 3.9 [3.1-6.8]                | 10.4 [7.7-13.1]               | 9.6 [1.5-13.6]                | .48 <sup>a</sup>        | <b>.004<sup>a</sup></b> | .51 <sup>a</sup>  | .35 <sup>a</sup>        | <b>.03<sup>b</sup></b>           |
| Sex, <i>n</i> (%)                   |                                   |                             |                              |                               |                               | .78 <sup>c</sup>        | n.a. <sup>d</sup>       | 1.00 <sup>c</sup> | .78 <sup>c</sup>        | .93 <sup>e</sup>                 |
| Female                              | 33 (48.5)                         | 26 (50.0)                   | 3 (50.0)                     | 23 (50.0)                     | 7 (43.8)                      |                         |                         |                   |                         |                                  |
| Male                                | 35 (51.5)                         | 26 (50.0)                   | 3 (50.0)                     | 23 (50.0)                     | 9 (56.3)                      |                         |                         |                   |                         |                                  |
| Grade, <i>n</i> (%)                 |                                   |                             |                              |                               |                               | .41 <sup>e</sup>        | .35 <sup>e</sup>        | .38 <sup>e</sup>  | .49 <sup>e</sup>        | .34 <sup>e</sup>                 |
| WHO II                              | 3 (4.4)                           | 3 (5.8)                     | 1 (16.7)                     | 2 (4.3)                       | 0 (0.0)                       |                         |                         |                   |                         |                                  |
| WHO III                             | 33 (48.5)                         | 23 (44.3)                   | 3 (50.0)                     | 20 (43.5)                     | 10 (62.5)                     |                         |                         |                   |                         |                                  |
| WHO IV                              | 32 (47.1)                         | 26 (50.0)                   | 2 (33.3)                     | 24 (52.2)                     | 6 (37.5)                      |                         |                         |                   |                         |                                  |
| Anatomic localization, <i>n</i> (%) |                                   |                             |                              |                               |                               | <b>.001<sup>e</sup></b> | 1.00 <sup>e</sup>       | .13 <sup>e</sup>  | <b>.002<sup>e</sup></b> | <b>.01<sup>e</sup></b>           |
| Thalamus/basal ganglia              | 24 (35.3)                         | 19 (36.5)                   | 2 (33.3)                     | 17 (37.0)                     | 5 (31.3)                      |                         |                         |                   |                         |                                  |
| Midbrain tectum                     | 2 (2.9)                           | 0 (0.0)                     | 0 (0.0)                      | 0 (0.0)                       | 2 (12.5)                      |                         |                         |                   |                         |                                  |
| Pons                                | 29 (42.6)                         | 27 (51.9)                   | 4 (66.7)                     | 23 (50.0)                     | 2 (12.5)                      |                         |                         |                   |                         |                                  |

|             |           |         |         |          |          |
|-------------|-----------|---------|---------|----------|----------|
| Spinal cord | 10 (14.7) | 5 (9.6) | 0 (0.0) | 5 (10.9) | 5 (31.3) |
| Other       | 3 (4.4)   | 1 (1.9) | 0 (0.0) | 1 (2.2)  | 2 (12.5) |

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*Note.* WT wildtype, pDMG pediatric diffuse midline glioma, IQR interquartile range, WHO World Health Organization. Relative frequencies summing up to 100% per column.

<sup>a</sup> Mann-Whitney *U* test. <sup>b</sup> Kruskal-Wallis test. <sup>c</sup> Fisher's exact test of independence. <sup>d</sup> No statistics performed as values are identical in both groups.

<sup>e</sup> Fisher-Freeman-Halton test.