## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: cluster-specific differential expression profiles from vehicle-treated tumors.

File Name: Supplementary Data 2

Description: cluster-specific differential expression profiles from WT P7 cerebella.

File Name: Supplementary Data 3

Description: the top 50 genes at the extremes of the 4 ICs from the analysis of vehicle-

treated tumors.

File Name: Supplementary Data 4

Description: the set of genes up-regulated in the Sox2<sup>+</sup> population compared to all other

cells from vehicle-treated tumors.

File Name: Supplementary Data 5

Description: cluster-specific differential expression profiles from ICA of Sox2<sup>+</sup> cells from vehicle-treated tumors, showing distinct astrocytic, oligodendrocytic, AP-like, OPC-like and

CGNP-like profiles.

File Name: Supplementary Data 6

Description: the top 50 genes at the extremes of the 4 ICs from the analysis of vismodegib-

treated and control tumors.

File Name: Supplementary Data 7

Description: the set of genes differentially up-regulated in Cluster 0 in vehicle-treated

tumors compared to all other vehicle-treated cells.

File Name: Supplementary Data 8

Description: the set of genes up-regulated in vismodegib-treated cells of Node A<sub>T</sub> compared

to vehicle-treated cells of Node B<sub>T.</sub>

File Name: Supplementary Data 9

Description: the set of genes expression thresholds used to generate the feature plots.