

Supporting Information, Table S2. Results of area under the MRS peak (arbitrary unit) of five metabolites and metabolite ratio in the frontal lobe of a dog with Sandhoff's disease.

| months | NAA | Cho | Cr | Gly-Ins | Lac-Ala | NAA/Cr | Cho/Cr | Gly-Ins/Cr | Lac-Ala/Cr |
|-----------|-------|-------|------|---------|---------|--------|--------|------------|------------|
| 17 | 123.8 | 167.3 | 75.0 | 10.0 | nd | 1.646 | 2.223 | 0.136 | nd |
| 18 | 121.5 | 154.0 | 74.0 | nd | nd | 1.643 | 2.082 | nd | nd |
| 20 | 106.0 | 147.8 | 72.5 | 13.2 | nd | 1.467 | 2.038 | 0.182 | nd |
| 21 | 96.7 | 155.7 | 71.4 | 38.5 | nd | 1.355 | 2.18 | 0.539 | nd |
| 22 | 81.2 | 132.0 | 71.4 | 63.8 | nd | 1.137 | 1.849 | 0.893 | nd |
| 23 | 93.4 | 119.7 | 72.0 | nd | nd | 1.298 | 1.664 | nd | nd |
| 24 | 98.2 | 147.3 | 75.3 | 55.1 | nd | 1.304 | 1.957 | 0.731 | nd |
| 25 | 78.9 | 157.3 | 64.4 | nd | 8.2 | 1.225 | 2.441 | nd | 0.127 |
| 26 | 75.3 | 123.1 | 51.4 | 14.2 | 7.9 | 1.464 | 2.396 | 0.276 | 0.154 |
| 28 | 59.4 | 131.6 | 45.0 | nd | 12.4 | 1.322 | 2.925 | nd | 0.276 |
| 34 | 59.1 | 135.2 | 64.6 | 125.0 | nd | 0.915 | 2.093 | 1.935 | nd |
| 36 | 60.8 | 148.0 | 46.9 | 137.0 | 24.1 | 1.296 | 3.156 | 2.921 | 0.514 |

NAA: N-acetylaspartate, Cho: choline, Cr: creatine, Gly-Ins: glycine-Myo-inositol, Lac-Ala: lactate-alanine, nd: not detected