

**Table S1.** Analysis of ratios of nodal length to nodal diameter in spinal cord treated with glutamate *in vivo*.

| Glutamate group (Glut) |                      |                    |                      |                    | Saline group (Ctrl) |
|------------------------|----------------------|--------------------|----------------------|--------------------|---------------------|
| Upper 3 <sup>e</sup>   | Upper 2 <sup>d</sup> | Upper <sup>c</sup> | Exposed <sup>b</sup> | Lower <sup>a</sup> | Exposed             |
|                        |                      | 2.87±0.18          | 3.11±0.31            | 2.65±0.11          |                     |
|                        |                      |                    | 3.25±0.15            |                    | 1.02±0.05           |
| 1.27±0.06              | 2.16±0.09            | 2.27±0.13          | 3.29±0.15            |                    | 0.97±0.03           |
| 1.18±0.04              | 2.33±0.08            | 2.77±0.10          | 3.02±0.09            |                    | 1.04±0.05           |

<sup>a</sup> ‘Lower’ means sections 5mm away from the exposed site along the spinal cord toward the tail.

<sup>b</sup> ‘Exposed’ means sections at the exposed site.

<sup>c</sup> ‘Upper’ means sections 5mm away from the exposed site along the spinal cord toward the head.

<sup>d</sup> ‘Upper 2’ means sections 15mm away from the exposed site toward the head.

<sup>e</sup> ‘Upper 3’ means sections around 30mm away from the exposed site.

Each ratio is the average of around 50 nodes.

Glutamate group includes 4 rats and saline group includes 3 rats.

The statistical data were presented as mean ± s.e.m.