

**Additional file 2: Motoneuron quantification data.**

	BEG -/- CaMK -/-		BEG -/T CaMK -/-		BEG -/T CaMK -/T		p value (ANOVA)
	contralateral						
	N	%	N	%	N	%	
000-100 $\mu\text{m}^2$	0	0	0	0	0	0	
100-200 $\mu\text{m}^2$	6	2	9	4	14	5	
200-300 $\mu\text{m}^2$	98	25	46	19	68	23	
300-400 $\mu\text{m}^2$	97	25	58	25	70	23	
400-500 $\mu\text{m}^2$	71	18	40	17	44	15	
500-600 $\mu\text{m}^2$	54	14	46	19	39	13	
600-700 $\mu\text{m}^2$	38	10	24	10	32	11	
700-800 $\mu\text{m}^2$	12	3	11	5	20	7	
>800 $\mu\text{m}^2$	14	3	2	0	14	4	
<b>N counted (all CHAT+)</b>	390		236		301		
<b>N counted (&gt;300 <math>\mu\text{m}^2</math>)</b>	286		181		219		
<b>Mean size all CHAT+ cells [<math>\mu\text{m}^2</math>]</b>	<b>434<math>\pm</math>10</b>		<b>432<math>\pm</math>13</b>		<b>443<math>\pm</math>11</b>		<i>n.s.</i>
<b>Mean size <math>\alpha</math> motoneurons (&gt;300 <math>\mu\text{m}^2</math>) [<math>\mu\text{m}^2</math>]</b>	<b>502<math>\pm</math>10</b>		<b>491<math>\pm</math>13</b>		<b>520<math>\pm</math>12</b>		<i>n.s.</i>
<b><math>\alpha</math> motoneurons / section</b>	<b>6.1<math>\pm</math>0.28</b>		<b>5.98<math>\pm</math>0.38</b>		<b>7.03<math>\pm</math>0.39</b>		<i>n.s.</i>
<b>ipsilateral</b>							
	N	%	N	%	N	%	
000-100 $\mu\text{m}^2$	1	0	4	2	0	0	
100-200 $\mu\text{m}^2$	49	16	22	11	17	7	
200-300 $\mu\text{m}^2$	96	32	43	22	46	20	
300-400 $\mu\text{m}^2$	61	20	45	23	36	16	
400-500 $\mu\text{m}^2$	36	12	35	18	36	16	
500-600 $\mu\text{m}^2$	40	13	22	11	42	19	
600-700 $\mu\text{m}^2$	13	4	16	8	21	9	
700-800 $\mu\text{m}^2$	2	1	9	5	16	7	
>800 $\mu\text{m}^2$	2	1	1	1	12	5	
<b>N counted (all CHAT+)</b>	301		197		227		
<b>N counted (&gt;300 <math>\mu\text{m}^2</math>)</b>	155		128		164		
<b>Mean size all CHAT+ cells [<math>\mu\text{m}^2</math>]</b>	<b>353<math>\pm</math>13</b>		<b>391<math>\pm</math>12</b>		<b>464<math>\pm</math>17</b>		<b>0.0008</b>
<b>Mean size <math>\alpha</math> motoneurons (&gt;300 <math>\mu\text{m}^2</math>) [<math>\mu\text{m}^2</math>]</b>	<b>478<math>\pm</math>18</b>		<b>484<math>\pm</math>20</b>		<b>556<math>\pm</math>17</b>		<b>0.0029</b>
<b><math>\alpha</math> motoneurons / section</b>	<b>3.15<math>\pm</math>0.20</b>		<b>3.79<math>\pm</math>0.27</b>		<b>5.43<math>\pm</math>0.28</b>		<b>&lt;0.0001</b>