

**SUPPLEMENTARY TABLE:**

| <b>Definition of gait parameters using the CatWalk XT automated gait analysis system:</b> |   |
|---|---|
| <b>Print area</b>   | Surface area of the complete paw print (in distance unit <sup>2</sup> ).  |
| <b>Print length</b>   | Length of the complete paw print (in distance unit).  |
| <b>Print width</b>  | Width of the complete paw print (in distance unit).   |
| <b>Max Contact Area</b>   | Maximum area of the paw that comes into contact with the glass plate. Print area at max contact (in distance unit <sup>2</sup> ).   |
| <b>Maximum intensity</b>  | Maximum intensity of the complete paw. Intensity is a measure of pressure exerted on the glass plate. Intensity ranges from 0 to 255.   |
| <b>Mean intensity</b>   | Mean intensity of the complete paw. Intensity is a measure of pressure exerted on the glass plate. Intensity ranges from 0 to 255.  |
| <b>Swing speed</b>  | Speed between successive placements of the same paw (distance unit/second).   |
| <b>Stride length</b>  | Distance between two consecutive Initial contacts of the same paw (in distance unit).   |
| <b>Regularity index</b>   | The Regularity index (RI) expresses the number of normal step sequence patterns relative to the total number of paw placements and is used as a measure for inter-limb coordination. Normal coordination is represented by an RI value of 100%.   |
| <b>Step pattern</b>   | There are a total of six normal step sequence patterns described in rodents that reflect the consecutive placing of the four paws in rodents. These patterns are categorized into three groups: alternate (Aa: RF-RH-LF-LH; Ab: LF-RH-RF-LH), cruciate (Ca: RF-LF-RH-LH; Cb: LF-RF-LH-RH) and rotary (Ra: RF-LF-LH-RH; Rb: LF-RF-RH-LH).  |
| <b>Phase dispersion</b>   | Phase dispersion describes the temporal relationship between placement of two paws within a step cycle. Phase dispersion can be calculated between “diagonal” paws (RF-LH, LF-RH), between paws on the same side (“ipsilateral”, RF-RH, LF-LH) or between paws of the same “girdle” (RF-LF, RH-LH). In normal animals diagonal paw pairs (RF-LH, LF-RH) typically move synchronously resulting in a Phase Dispersion value of 0%. Girdle pairs (RF-LF, RH-LH) and ipsilateral pairs usually yield a Phase Dispersion value of 50% |
| <b>Print position</b>   | Print Positions is the distance between the position of the hind paw and the position of the previously placed front paw on the same side of the body (ipsilateral) and in the same StepCycle (in distance units). A positive value of Print Positions indicates that the hind paw is placed behind the front paw. A negative value of Print Positions indicates that the hind paw is placed in front of the front paw.   |

Abbreviations: RF...right front, RH... right hind, LF...left front, LH...left hind paw.