**Table S1 Summary of microglia morphology parameters (Skeleton and FracLac analyses)**

| | Measure | Unit | Scale | Interpretation |
|---|---|---|---|---|
| Process lenght | Summed | µm/cell | Photomicro-graph | Cell ramification |
| Process endpoints | Summed | #/cell | Photomicro-graph | Cell ramification |
| Fractal Dimension | Regression slope $\left[\frac{In\,(N)}{In\,(\varepsilon)}\right]$ | $D_B$ | Individual cell | Cell complexity |
| Span Ratio | $\frac{convex\ hull\ eclipse\ longest\ lenght}{convex\ hull\ eclipse\ longest\ width}$ | Ratio | Individual cell | Cell shape |
| Density | $\frac{\#\ of\ pixels\ within\ cell\ outline}{area\ of\ convex\ hull}$ | $\frac{\#\ of\ pixels}{area}$ | Individual cell | Cell size |
| Area | Total number of pixels present in the filled shape of cell image | $µm^2$ | Individual cell | Cell size |
| Perimeter | # of pixels expressed in microns | µm | Individual cell | Cell size |
| Lacunarity | heterogeneity or translational and rotational invariance in a shape | mass distribution of pixels | Individual cell | Shape changing |
| Circularity | $\frac{(4\pi \times cell\ area)}{(cell\ perimeter)^2}$ | Ratio | Individual cell | Cell shape |