**Supplemental Data**

**Branching Density**

Branching density data was validated using a plugin written for ImageJ. Skeletonized images used for the Sholl analysis were sampled by randomly generating 2, 3, and 4 mm lines throughout each image and the number of intersections/mm were determined according to the following protocol.

1. A box was drawn around the gland so that the gland was completely contained.
2. ImageJ created 500 lines of defined distance randomly dispersed throughout the box. The number of intersections for each line was counted.
3. Any lines that did not have at least one intersection were excluded.
   1. These included regions outside the gland or void space occupied by the lymph node.
4. The process was conducted three times using 2, 3, and 4 mm lines.
5. Mean N/mm2 ± SEM for treated and vehicle groups were determined for each line length and means were assessed for differences by t-test.

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| **Table 1. Mean N/mm for 2 mm sample lines** | | | |
|  | **Total Lines** | **Total N** | **N/mm** |
| Vehicle (8) | 349 ± 7 | 1280 ± 72 | 1.83 ± 0.02 |
| 5 µg EE/kg BW (7) | 341 ± 8 | 1448 ± 30 | 2.12 ± 0.02 \*\* |
| ***(n); Values are means ± SEM; N = intersections; \*\*p<0.001*** | | | |

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| **Table 2. Mean N/mm for 3 mm sample lines** | | | |
|  | **Total Lines** | **Total N** | **N/mm** |
| Vehicle (8) | 348 ± 7 | 2052 ± 126 | 1.94 ± 0.02 |
| 5 µg EE/kg BW (7) | 388 ± 8 | 2325 ± 73 | 2.05 ± 0.02 \*\* |
| ***(n); Values are means ± SEM; N = intersections; \*\*p<0.001*** | | | |

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| **Table 3. Mean N/mm for 4 mm sample lines** | | | |
|  | **Total Lines** | **Total N** | **N/mm** |
| Vehicle (8) | 360 ± 11 | 2591 ± 187 | 1.79 ± 0.02 |
| 5 µg EE/kg BW (7) | 398 ± 5 | 3083 ± 87 | 1.95 ± 0.02 \*\* |
| ***(n); Values are means ± SEM; N = intersections; \*\*p<0.001*** | | | |