

**Supplementary Table 1:** Control group of healthy dog

| #  | Breed          | Sex | Age (years) | Bodyweight (Kg) | BCS |
|----|----------------|-----|-------------|-----------------|-----|
| 1  | Cocker         | M   | 11          | 17              | 5   |
| 2  | Lagotto        | NM  | 3           | 15              | 5   |
| 3  | Cross breed    | F   | 6           | 10              | 5   |
| 4  | Dogo Argentino | F   | 2           | 36              | 5   |
| 5  | Cross breed    | NM  | 5           | 30              | 5   |
| 6  | Poodle         | SF  | 7           | 12              | 5   |
| 7  | American Bully | M   | 4           | 27              | 5   |
| 8  | Cross breed    | NM  | 5           | 12              | 5   |
| 9  | Cross breed    | NM  | 5           | 39              | 5   |
| 10 | Cross breed    | M   | 6           | 11              | 5   |
| 11 | Cross breed    | SF  | 7           | 35              | 5   |

**Supplementary Table 2:** Comparative analysis of circulating endocannabinoid levels between dogs in clinical stages I and II versus stage III; dogs that received antihistaminic treatment versus those that did not; dogs with tumor sizes greater than 3 cm versus less than 3 cm; and dogs with ulceration versus those without ulceration.

| Factor         | Endocannabinoid | Group  | Mean   | SEM   | P-Value | 95% CI Lower | 95% CI Upper |
|----------------|-----------------|--------|--------|-------|---------|--------------|--------------|
| Clinical Stage | AEA             | I+II   | 5.8    | 0.92  | 0.872   | -3.54        | 4.14         |
|                |                 | III    | 5.5    | 1.85  |         |              |              |
|                | 2-AG            | I+II   | 139.08 | 23.9  | 0.888   | -85.74       | 74.12        |
|                |                 | III    | 144.89 | 33.25 |         |              |              |
|                | PEA             | I+II   | 29.67  | 1.41  | 0.665   | -6.95        | 4.52         |
|                |                 | III    | 30.89  | 2.73  |         |              |              |
|                | OEA             | I+II   | 18.72  | 2.4   | 0.92    | -9.51        | 8.61         |
|                |                 | III    | 19.17  | 4.13  |         |              |              |
| Antihistaminic | AEA             | Yes    | 5.77   | 0.98  | 0.89    | -4.17        | 3.5          |
|                |                 | No     | 6.11   | 1.14  |         |              |              |
|                | 2-AG            | Yes    | 142.09 | 50.02 | 0.966   | -108.28      | 103.75       |
|                |                 | No     | 144.35 | 23.34 |         |              |              |
|                | PEA             | Yes    | 28.53  | 1.82  | 0.554   | -8.35        | 3.87         |
|                |                 | No     | 30.77  | 1.75  |         |              |              |
|                | OEA             | Yes    | 21.58  | 5.43  | 0.589   | -8.43        | 14.95        |
|                |                 | No     | 18.32  | 2.62  |         |              |              |
| Tumor Size     | AEA             | > 3 cm | 6.21   | 1.63  | 0.705   | -3.03        | 4.51         |
|                |                 | < 3 cm | 5.48   | 1.03  |         |              |              |
|                | 2-AG            | > 3 cm | 130.85 | 31.48 | 0.736   | -94.77       | 65.65        |
|                |                 | < 3 cm | 145.41 | 23.92 |         |              |              |
|                | PEA             | > 3 cm | 32.63  | 3.59  | 0.213   | -2.91        | 10.07        |
|                |                 | < 3 cm | 29.05  | 1.05  |         |              |              |
|                | OEA             | > 3 cm | 23.24  | 5.39  | 0.106   | -2.56        | 12.04        |
|                |                 | < 3 cm | 17.06  | 1.8   |         |              |              |

|            |      |     |        |       |       |         |       |
|------------|------|-----|--------|-------|-------|---------|-------|
| Ulceration | AEA  | Yes | 4.12   | 1.25  | 0.243 | -5.63   | 1.17  |
|            |      | No  | 6.35   | 1.06  |       |         |       |
|            | 2-AG | Yes | 180.58 | 40.35 | 0.165 | -125.64 | 9.31  |
|            |      | No  | 230.43 | 35.2  |       |         |       |
|            | PEA  | Yes | 20.57  | 3.1   | 0.611 | -8.25   | 5.26  |
|            |      | No  | 25.33  | 2.65  |       |         |       |
|            | OEA  | Yes | 15.24  | 4.12  | 0.49  | -7.6    | 14.07 |
|            |      | No  | 18.99  | 3.48  |       |         |       |