**Table S2. Statistical analyses**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Comparison** | **Statistical Test** | **Statistical results (F-statistics and adjusted P-values)** | **95% Confidence intervals** | **Figure** |
| Sham-Vehicle vs. SNI-Vehicle vs. SNI-Dimethyl fumarate at baseline | One-way ANOVA | F (2, 9) = 0.29, *P* = 0.753 |  | Fig. 1A |
| Vehicle vs. Dimethyl fumarate over time | Two-way repeated measures ANOVA | time x treatment: F (6, 36) = 2.79, *P* = 0.025; time: F (3, 36) = 2.45, *P* = 0.079; treatment: F (2, 36) = 166.9, *P* < 0.001 |  | Fig. 1A |
| SNI-Vehicle vs. SNI-Dimethyl fumarate: day 2 | Tukey's post hoc | *P* > 0.999 | -0.4, 0.6 | Fig. 1A |
| SNI-Vehicle vs. SNI-Dimethyl fumarate: day 5 | Tukey's post hoc | *P* = 0.605 | -0.9, 0.2 | Fig. 1A |
| SNI-Vehicle vs. SNI-Dimethyl fumarate: day 7 | Tukey's post hoc | *P* = 0.007 | -1.1, -0.1 | Fig. 1A |
| Sham-Vehicle vs. Sham-Dimethyl fumarate vs. SNI-Vehicle vs. SNI-Dimethyl fumarate at baseline | One-way ANOVA | F (3, 20) = 0.33, *P* = 0.328 |  | Fig. 1B |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate over time | Three-way repeated measures ANOVA | time x injury x treatment: F (4, 80) = 17.4, *P* *<* 0.001; injury x treatment: F (1, 20) = 96.6, *P* *<* 0.001; time x treatment: F (4, 80) = 28.0, *P* *<* 0.001; time x injury: F (4, 80) = 21.6, *P* *<* 0.001; treatment: F (1, 20) = 138, *P* *<* 0.001; injury: F (1, 20) = 467, *P* *<* 0.001; time: F (4, 80) = 23.5, *P* *<* 0.001 |  | Fig. 1B |
| SNI-Vehicle vs. SNI-Dimethyl fumarate: day 2 | Tukey's post hoc | *P* < 0.001 | -1.0, -0.4 | Fig. 1B |
| SNI-Vehicle vs. SNI-Dimethyl fumarate: day 3 | Tukey's post hoc | *P* < 0.001 | -1.4, -0.7 | Fig. 1B |
| SNI-Vehicle vs. SNI-Dimethyl fumarate: day 4 | Tukey's post hoc | *P* < 0.001 | -1.5, -0.9 | Fig. 1B |
| SNI-Vehicle vs. SNI-Dimethyl fumarate: day 5 | Tukey's post hoc | *P* < 0.001 | -1.6, -1.0 | Fig. 1B |
| Naive-Vehicle vs. SNI-Vehicle | Chi-square test | *P* = 0.053 |  | Fig. 1C |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Chi-square test | *P* = 0.013 |  | Fig. 1C |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Chi-square test | *P* = 0.013 |  | Fig. 1C |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 22) = 7.008, *P* = 0.015; injury: F (1, 22) = 0.43, *P* = 0.520; treatment: F (1, 22) = 72.07, *P* < 0.001 |  | Fig. 2A |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* < 0.001 | -64, -31 | Fig. 2A |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.538 | -26, 9 | Fig. 2A |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* < 0.001 | -50, -17 | Fig. 2A |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | 22, 55 | Fig. 2A |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.100 | -2, 30 | Fig. 2A |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.002 | -41, -8 | Fig. 2A |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 16) = 0.35, *P* = 0.561; injury: F (1, 16) = 0.01, *P* = 0.966; treatment: F (1, 16) = 33.0, *P* < 0.001 |  | Fig. 2C |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.002 | -6.11, -1.35 | Fig. 2C |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.969 | -2.75, 2.00 | Fig. 2C |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.004 | -5.78, -1.03 | Fig. 2C |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.005 | 0.98, 5.73 | Fig. 2C |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.979 | -2.06, 2.70 | Fig. 2C |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.011 | -5.41, -0.65 | Fig. 2C |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 20) = 4.78, *P* = 0.041; injury: F (1, 20) = 3.83, *P* = 0.065; treatment: F (1, 20) = 11.13, *P* = 0.003 |  | Fig. 3A |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.848 | -0.27, 0.15 | Fig. 3A |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.038 | 0.01, 0.43 | Fig. 3A |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.765 | -0.28, 0.14 | Fig. 3A |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.007 | 0.071, 0.49 | Fig. 3A |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.998 | -0.22, 0.20 | Fig. 3A |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.005 | -0.51, -0.08 | Fig. 3A |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 20) = 0.26, *P* = 0.616; injury: F (1, 20) = 1.65, *P* = 0.214; treatment: F (1, 20) = 14.0, *P* = 0.001 |  | Fig. 3B |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.136 | -1.07, 0.11 | Fig. 3B |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.593 | -0.32, 0.85 | Fig. 3B |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.332 | -0.95, 0.22 | Fig. 3B |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.010 | 0.16, 1.33 | Fig. 3B |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.946 | -0.47, 0.70 | Fig. 3B |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.033 | -1.22, -0.04 | Fig. 3B |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 20) = 0.95, *P* = 0.341; injury: F (1, 20) = 0.17, *P* = 0.687; treatment: F (1, 20) = 1.94, *P* = 0.179 |  | Fig. 3C |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 20) = 7.11, *P* = 0.015; injury: F (1, 20) = 1.91, *P* = 0.183; treatment: F (1, 20) = 15.44, *P* < 0.001 |  | Fig. 3D |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.807 | -1.13, 0.58 | Fig. 3D |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.044 | 0.02, 1.72 | Fig. 3D |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.301 | -1.40, 0.30 | Fig. 3D |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.006 | 0.29, 2.00 | Fig. 3D |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.800 | -1.13, 0.58 | Fig. 3D |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.001 | -2.27, -0.57 | Fig. 3D |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 20) = 2.80, *P* = 0.110; injury: F (1, 20) = 8.00, *P* = 0.010; treatment: F (1, 20) = 13.82, *P* < 0.001 |  | Fig. 3E |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.487 | -0.47, 0.15 | Fig. 3E |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.022 | 0.04, 0.66 | Fig. 3E |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.921 | -0.38, 0.24 | Fig. 3E |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | 0.20, 0.82 | Fig. 3E |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.846 | -0.22, 0.40 | Fig. 3E |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.006 | -0.73, -0.11 | Fig. 3E |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 20) = 10.5, *P* = 0.004; injury: F (1, 20) = 3.23, *P* = 0.087; treatment: F (1, 20) = 27.3, *P* < 0.001 |  | Fig. 3F |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.511 | -0.37, 0.12 | Fig. 3F |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.010 | 0.07, 0.55 | Fig. 3F |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.105 | -0.45, 0.03 | Fig. 3F |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | 0.19, 0.68 | Fig. 3F |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.742 | -0.76, 0.28 | Fig. 3F |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* < 0.001 | -0.76, -0.28 | Fig. 3F |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 20) = 15.19, *P* < 0.001; injury: F (1, 20) = 0.33, *P* = 0.573; treatment: F (1, 20) = 24.72, *P* < 0.001 |  | Fig. 3G |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.872 | -2.28, 1.31 | Fig. 3G |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.120 | -0.29, 3.30 | Fig. 3G |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.004 | -4.30, -0.72 | Fig. 3G |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.026 | 0.20, 3.78 | Fig. 3G |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.023 | -3.82, -0.23 | Fig. 3G |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* < 0.001 | -5.81, -2.22 | Fig. 3G |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 20) = 5.04, *P* = 0.036; injury: F (1, 20) = 2.91, *P* = 0.104; treatment: F (1, 20) = 13.44, *P* = 0.002 |  | Fig. 3H |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.748 | -0.11, 0.22 | Fig. 3H |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.051 | -0.33, 0.01 | Fig. 3H |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.698 | -0.09, 0.25 | Fig. 3H |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.007 | -0.40, -0.05 | Fig. 3H |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.999 | -0.15, 0.19 | Fig. 3H |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.002 | 0.08, 0.04 | Fig. 3H |
| Sham-Vehicle-trigonelline vs. SNI-Dimethyl fumarate-Vehicle vs. SNI-Vehicle-trigonelline vs. SNI-Dimethyl fumarate-trigonelline at baseline | One-way ANOVA | F (3, 18) = 0.55, *P* = 0.653 |  | Fig. 4A |
| SNI-Dimethyl fumarate-Vehicle vs. SNI-Dimethyl fumarate-trigonelline over time | Two-way repeated measures ANOVA | time x treatment: F (4, 40) = 18.33, *P* < 0.001; time: F (2.541, 25.41) = 20.53, *P* < 0.001; treatment: F (1, 10) = 17.19, *P* = 0.002 |  | Fig. 4A |
| SNI-Vehicle vs. SNI-trigonelline: day 2 | Tukey's post hoc | *P* = 0.999 | -0.6, 0.8 | Fig. 4A |
| SNI-Vehicle vs. SNI-trigonelline: day 3 | Tukey's post hoc | *P* = 0.022 | 0.1, 1.3 | Fig. 4A |
| SNI-Vehicle vs. SNI-trigonelline: day 4 | Tukey's post hoc | *P* = 0.004 | 0.3, 1.5 | Fig. 4A |
| SNI-Vehicle vs. SNI-trigonelline: day 5 | Tukey's post hoc | *P* = 0.002 | 0.5, 1.8 | Fig. 4A |
| SNI-Vehicle-trigonelline over time | One-way repeated measures ANOVA | F (2.583, 10.33) = 0.28, *P* = 0.813 |  | Fig. 4A |
| Sham-Vehicle-trigonelline over time | One-way repeated measures ANOVA | F (1.397, 5.587) = 0.95, *P* = 0.405 |  | Fig. 4A |
| Dimethyl fumarate-Vehicle vs. Dimethyl fumarate-Trigonelline | Unpaired t-test | *P* < 0.001 | -53, -39 | Fig. 4B |
| *Nfe2l2*-/- vs. wild type at baseline | Unpaired t-test | *P* = 0.486 | -0.6, 0.3 | Fig. 4D |
| Male vs. female, wildtype | Two-way repeated measures ANOVA | time x treatment: F (7, 42) = 0.97, *P =* 0.472; time: F (7, 42) = 51.95, *P* < 0.001; genotype: F (1, 6) = 0.22, *P* = 0.655 |  | Fig. 4D |
| Male vs. female, *Nfe2l2*-/- | Two-way repeated measures ANOVA | time x treatment: F (7, 42) = 0.16, *P =* 0.991; time:  F (1.001, 6.007) = 47.53, *P* < 0.001; genotype: F (1, 6) = 0.19, *P* = 0.676 |  | Fig. 4D |
| *Nfe2l2*-/- vs. wild type over time | Two-way repeated measures ANOVA | time x treatment: F (4, 56) = 38.26, *P <* 0.001; time: F (2.607, 36.50) = 37.85, *P* < 0.001; genotype: F (1, 14) = 92.70, *P* < 0.001 |  | Fig. 4D |
| *Nfe2l2*-/- vs. wild type: day 2 | Tukey's post hoc | *P* = 0.019 | 0.1, 0.3 | Fig. 4D |
| *Nfe2l2*-/- vs. wild type: day 3 | Tukey's post hoc | *P* = 0.012 | 0.1, 0.3 | Fig. 4D |
| *Nfe2l2*-/- vs. wild type: day 4 | Tukey's post hoc | *P* < 0.001 | 0.6, 1.2 | Fig. 4D |
| *Nfe2l2*-/- vs. wild type: day 5 | Tukey's post hoc | *P* < 0.001 | 0.6, 1.2 | Fig. 4D |
| *Nfe2l2*-/- vs. wild type: day 3 (post last dose) | Tukey's post hoc | *P* = 0.024 | 0.1, 0.4 | Fig. 4D |
| *Nfe2l2*-/- vs. wild type: day 5 (post last dose) | Tukey's post hoc | *P* = 0.838 | -0.1, 0.1 | Fig. 4D |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 24) = 50.50, *P* < 0.001; injury: F (1, 24) = 141.3, *P* < 0.001; treatment: F (1, 24) = 53.88, *P* < 0.001 |  | Fig. 5A |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.998 | -7, 8 | Fig. 5A |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | -42, -28 | Fig. 5A |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.018 | -16, -1 | Fig. 5A |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | -43, -28 | Fig. 5A |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.012 | -16, -2 | Fig. 5A |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* < 0.001 | 19, 34 | Fig. 5A |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 18) = 5.95, *P* = 0.025; injury: F (1, 18) = 11.19, *P* = 0.004; treatment: F (1, 18) = 3.78, *P* = 0.068 |  | Fig. 6B |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.987 | -0.59, 0.75 | Fig. 6B |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.001 | 0.35, 1.51 | Fig. 6B |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.605 | -0.37, 0.96 | Fig. 6B |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.008 | -0.20, -1.50 | Fig. 6B |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.934 | -0.55, 0.84 | Fig. 6B |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.021 | -1.31, -0.09 | Fig. 6B |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 18) = 3.71, *P* = 0.070; injury: F (1, 18) = 14.18, *P* = 0.001; treatment: F (1, 18) = 11.58, *P* = 0.003 |  | Fig. 6C |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.753 | -0.54, 0.26 | Fig. 6C |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.002 | 0.20, 0.89 | Fig. 6C |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.965 | -0.31, 0.44 | Fig. 6C |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | 0.30, 1.08 | Fig. 6C |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.638 | -0.24, 0.59 | Fig. 6C |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.005 | -0.87, -0.15 | Fig. 6C |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 18) = 7.17, *P* = 0.015; injury: F (1, 18) = 4.41, *P* = 0.050; treatment: F (1, 18) = 4.41, *P* = 0.017 |  | Fig. 6D |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* > 0.999 | -2.64, 2.70 | Fig. 6D |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.009 | 0.62, 5.22 | Fig. 6D |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* > 0.999 | -2.67, 2.16 | Fig. 6D |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.024 | 0.29, 5.48 | Fig. 6D |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.999 | -3.20, 2.42 | Fig. 6D |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.006 | -5.66, -0.82 | Fig. 6D |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 18) = 5.28, *P* = 0.034; injury: F (1, 18) = 1.90, *P* = 0.185; treatment: F (1, 18) = 5.68, *P* = 0.028 |  | Fig. 6E |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* > 0.999 | -2.31, 2.22 | Fig. 6E |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.045 | 0.04, 3.95 | Fig. 6E |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.888 | -2.69, 1.59 | Fig. 6E |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.075 | -0.16, 4.24 | Fig. 6E |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.931 | -2.85, 1.86 | Fig. 6E |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.013 | -4.59, -0.48 | Fig. 6E |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 20) = 0.35, *P* = 0.559; injury: F (1, 20) = 15.42, *P* < 0.001; treatment: F (1, 20) = 17.00, *P* < 0.001 |  | Fig. 7A |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.091 | -0.08, 1.36 | Fig. 7A |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.022 | -1.54, -0.10 | Fig. 7A |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.999 | -0.68, 0.76 | Fig. 7A |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | -2.18, -0.74 | Fig. 7A |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.120 | -1.33, 0.11 | Fig. 7A |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.016 | -0.14, -1.58 | Fig. 7A |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 16) = 6.42, *P* = 0.022; injury: F (1, 16) = 20.6, *P* < 0.001; treatment: F (1, 16) = 27.8, *P* < 0.001 |  | Fig. 7B |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.254 | -1.17, 6.06 | Fig. 7B |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | -9.93, -2.70 | Fig. 7B |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.953 | -2.96, 4.27 | Fig. 7B |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | -12.4, -5.14 | Fig. 7B |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.509 | -5.40, 1.83 | Fig. 7B |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* < 0.001 | 3.36, 10.6 | Fig. 7B |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 20) = 6.75, *P* = 0.017; injury: F (1, 20) = 32.34, *P* < 0.001; treatment: F (1, 20) = 16.03, *P* < 0.001 |  | Fig. 7C |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.755 | -0.27, 0.58 | Fig. 7C |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | -1.32, -0.47 | Fig. 7C |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.640 | -0.61, 0.24 | Fig. 7C |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | -1.47, -0.62 | Fig. 7C |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.162 | -0.76, 0.09 | Fig. 7C |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* < 0.001 | -0.28, -1.14 | Fig. 7C |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 16) = 43.41, *P* < 0.001; injury: F (1, 16) = 140.5, *P* < 0.001; treatment: F (1, 16) = 54.67, *P* < 0.001 |  | Fig. 7D |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.940 | -0.46, 0.69 | Fig. 7D |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | -3.18, -2.04 | Fig. 7D |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.028 | -1.20, -0.06 | Fig. 7D |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | -3.29, -2.15 | Fig. 7D |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.009 | -1.32, -0.17 | Fig. 7D |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* < 0.001 | 1.41, 2.55 | Fig. 7D |
| Sham vs. SNI; Vehicle vs. Dimethyl fumarate | Two-way ANOVA | injury x treatment: F (1, 20) = 1.25, *P* = 0.28; injury: F (1, 20) = 5.70, *P* = 0.027; treatment: F (1, 20) = 20.53, *P* < 0.001 |  | Fig. 7E |
| Sham-Vehicle vs. Sham-Dimethyl fumarate | Tukey's post hoc | *P* = 0.106 | -0.11, 1.52 | Fig. 7E |
| Sham-Vehicle vs. SNI-Vehicle | Tukey's post hoc | *P* = 0.094 | -1.54, 0.09 | Fig. 7E |
| Sham-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.447 | -0.37, 1.60 | Fig. 7E |
| Sham-Dimethyl fumarate vs. SNI-Vehicle | Tukey's post hoc | *P* < 0.001 | -2.24, -0.61 | Fig. 7E |
| Sham-Dimethyl fumarate vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.806 | -1.08, 0.55 | Fig. 7E |
| SNI-Vehicle vs. SNI-Dimethyl fumarate | Tukey's post hoc | *P* = 0.004 | -0.35, -1.98 | Fig. 7E |