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| Figure | Comparison | Test | Sample size | Number of independent experiments | *p*-value | Asterisks | post hoc tests | F, Dfn, Dfd |
| 1B | Top | PDL vs. ECL | One-way ANOVA | 300 muscle cells in each condition | 3 | 0.0465 | \* | Dunnett's multiple comparisons test | 2.527, 4, 10 |
| PDL vs. Laminin | 0.2053 | n.s. |
| PDL vs. Collagen | 0.3634 | n.s. |
| PDL vs. Gelatin | 0.8377 | n.s. |
| Bottom | PDL vs. ECL | One-way ANOVA | 300 muscle cells in each condition | 3 | 0.0344 | \* | Dunnett's multiple comparisons test | 9.792, 4, 10 |
| PDL vs. Laminin | 0.0089 | \*\* |
| PDL vs. Collagen | 0.0004 | \*\*\* |
| PDL vs. Gelatin | 0.0069 | \*\* |
| 1E  |   | PDL vs. ECL | One-way ANOVA | 150 muscle cells in each condition  | 3 | 0.0042 | \*\* | Dunnett's multiple comparisons test | 6.97, 4, 10 |
| PDL vs. Laminin | 0.0133 | \* |
| PDL vs. Collagen | 0.0087 | \*\* |
| PDL vs. Gelatin | 0.0047 | \*\* |
| 2B |   |   | Pearson's correlation |  84 muscle cells | 3 | <0.0001 | - | / | / |
| 2F | 1 Day | Control vs. BB-94 | Two-way ANOVA  | > 280 muscle cells in each condition | 3 | 0.8995 | n.s. | Dunnett’s multiple comparisons test  | Time point: 207.1, 3, 6Treatment: 275.5, 2, 4Time point x Treatment Interaction: 50.67, 6, 12 |
| Control vs. BB-2516 | 0.5591 | n.s. |
| 2 Days | Control vs. BB-94 | <0.0001 | \*\*\*\* |
| Control vs. BB-2516 | <0.0001 | \*\*\*\* |
| 3 Days | Control vs. BB-94 | <0.0001 | \*\*\*\* |
| Control vs. BB-2516 | <0.0001 | \*\*\*\* |
| 4 Days | Control vs. BB-94 | <0.0001 | \*\*\*\* |
| Control vs. BB-2516 | <0.0001 | \*\*\*\* |
| 2G |   | Control vs. BB-94 | One-way ANOVA | 150 muscle cells in each condition  | 3 | 0.4093 | n.s. | Dunnett’s multiple comparisons test  | 0.8857, 2, 6 |
| Control vs. BB-2516 | 0.5183 | n.s. |
| 2H |   | Control vs. BB-94 | One-way ANOVA | 166 (Control), 154 (BB-94), 137 (BB-2516) muscle cells | 3 | 0.0005 | \*\*\* | Dunnett’s multiple comparisons test  | 37.2, 2, 6 |
| Control vs. BB-2516 | 0.0007 | \*\*\* |
| 2J | 24 h | Control vs. BB-94 | Two-way ANOVA  | 43 (Control) and 38 (BB-94) muscle cells  | 3 | 0.9975 | n.s. | Sidak’s multiple comparisons test | Interaction: 14.48, 3, 237Time point: 174.9, 3, 237Treatment: 5.969, 1, 79Subjects (matching): 8.392, 79, 237 |
| 48 h | 0.9981 | n.s. |
| 72 h | 0.0146 | \* |
| 96 h | <0.0001 | \*\*\*\* |
| 3C | Top | MT1-mCherry vs. Control | One-way ANOVA | 163 (Control), 123 (MT1-mCherry), 119 (MT1-mCherry + BB-94), and 62 (MT1-mCherry + BB-2516) muscle cells  | 4 | 0.0019 | \*\* | Dunnett's multiple comparisons test | 8.412, 3, 10 |
| MT1-mCherry vs. MT1-mCherry + BB-94 | 0.1304 | n.s. |
| MT1-mCherry vs. MT1-mCherry + BB-2516 | 0.017 | \* |
| Bottom | MT1-mCherry vs. Control | One-way ANOVA | 0.0016 | \*\* | Dunnett's multiple comparisons test | 11.09, 3, 10 |
| MT1-mCherry vs. MT1-mCherry + BB-94 | 0.0022 | \*\* |
| MT1-mCherry vs. MT1-mCherry + BB-2516 | 0.0073 | \*\* |
| 3D | AChR | Control vs. MT1-mCherry | One-way ANOVA | 14 (Control), 19 (MT1-mCherry), 21 (MT1-mCherry + BB-94), and 16 (MT1-mCherry + BB-2516) muscle cells | 3 | 0.0156 | \* | Turkey’s multiple comparisons test | 6.809, 3, 8 |
| Control vs. MT1-mCherry + BB-94 | 0.4956 | n.s. |
| Control vs. MT1-mCherry + BB-2516 | 0.9911 | n.s. |
| MT1-mCherry vs. MT1-mCherry + BB-94 | 0.1203 | n.s. |
| MT1-mCherry vs. MT1-mCherry + BB-2516 | 0.023 | \* |
| MT1-mCherry + BB-94 vs. MT1-mCherry + BB-2516 | 0.653 | n.s. |
| Gelatin | Control vs. MT1-mCherry | One-way ANOVA | 30 (Control), 39 (MT1-mCherry), 33 (MT1-mCherry + BB-94), and 31 (MT1-mCherry + BB-2516) muscle cells  | 3 | <0.0001 | \*\*\*\* | Turkey’s multiple comparisons test | 105.2, 3, 8 |
| Control vs. MT1-mCherry + BB-94 | 0.9782 | n.s. |
| Control vs. MT1-mCherry + BB-2516 | 0.9252 | n.s. |
| MT1-mCherry vs. MT1-mCherry + BB-94 | <0.0001 | \*\*\*\* |
| MT1-mCherry vs. MT1-mCherry + BB-2516 | <0.0001 | \*\*\*\* |
| MT1-mCherry + BB-94 vs. MT1-mCherry + BB-2516 | 0.9959 | n.s. |
| 4B | AChR | Control vs. CLASP-MO | Unpaired t-test | 16 (Control), and 13 (CLASP-MO) cells | 3 | 0.2329 | n.s. | / | / |
| Non-AChR | Control vs. CLASP-MO | 0.9591 | n.s. |
| Control  | AChR vs. non-AChR | 0.0021 | \*\* |
| CLASP-MO | AChR vs. non-AChR | 0.0117 | \* |
| 4C | AChR | Control vs. CLASP-MO | Unpaired t-test | 16 (Control), and 13 (CLASP-MO) cells | 3 | 0.0144 | \* | / | / |
| Non-AChR | Control vs. CLASP-MO | 0.7992 | n.s. |
| Control  | AChR vs. non-AChR | 0.0002 | \*\*\* |
| CLASP-MO | AChR vs. non-AChR | 0.0686 | n.s. |
| 4H |   | Control vs. CLASP-MO | Unpaired t-test | 18 (Control) and 14 (CLASP-MO) cells | 4 | 0.0341 | \* | / | / |
| 6B |   | Control vs. Low MT1-pHluroin level | One-way ANOVA | 150 (Control), 32 (Low MT1-pHluorin level), and 15 (High MT1-pHluorin level) muscle cells  | 3 | 0.0646 | n.s. | Bonferroni’s multiple comparisons test | 17.1, 2, 6 |
| Control vs. High MT1-pHluroin level | 0.0022 | \*\* |
| 6E |   |   | Pearson's correlation | 13 MT1-pHluorin expressing muscle cells | 3 | 0.0056 | - | / | / |
| 6H |   | Control vs. CLASP-MO | Unpaired t-test | 10 (Control) and 10 (CLASP-MO) muscle cells  | 3 | 0.0004 | \*\*\* | / | / |
| 7B | AChR | Control vs. BB-94 | One-way ANOVA | 30 (Control), 32 (BB-94), and 38 (BB-2516) nerve-muscle pairs | 4 | 0.0002 | \*\*\* | Dunnett's multiple comparisons test | 30.34, 2, 9 |
| Control vs. BB-2516 | 0.0002 | \*\*\* |
| Gelatin | Control vs. BB-94 | One-way ANOVA | 30 (Control), 32 (BB-94), and 38 (BB-2516) nerve-muscle pairs | 4 | 0.0028 | \*\* | Dunnett's multiple comparisons test | 13.32, 2, 9 |
| Control vs. BB-2516 | 0.003 | \*\* |
| 7G |   | Control vs. BB-94 | One-way ANOVA | 30 (Control), 27 (BB-94), and 22 (BB-2516) muscle cells  | 3 | 0.0101 | \* | Dunnett's multiple comparisons test | 9.547, 2, 6 |
| Control vs. BB-2516 | 0.0354 | \* |
| 8B |   | WT vs. Control MO | One-way ANOVA | 127 (WT), 120 (Control MO), 146 (MT1-MO), or 34 (MT1-mCherry + MT1-MO) nerve-muscle pairs | 3 | 0.8084 | n.s. | Sidak’s multiple comparisons test | 19.53, 3, 8 |
| WT vs. MT1-MO | 0.0007 | \*\*\* |
| WT vs. MT1-mCherry + MT1-MO | 0.906 | n.s. |
| Control MO vs. MT1-MO | 0.0029 | \*\* |
| Control MO vs. MT1-mCherry + MT1-MO | >0.9999 | n.s. |
| MT1-MO vs. MT1-mCherry + MT1-MO | 0.0022 | \*\* |
| 8C |   | WT vs. Control MO | One-way ANOVA | 29 (WT), 30 (Control MO), 32 (MT1-MO), or 23 (MT1-mCherry + MT1-MO) nerve-muscle pairs  | 4 | 0.6984 | n.s. | Sidak’s multiple comparisons test | 7.597, 3, 8 |
| WT vs. MT1-MO | 0.0058 | \*\* |
| WT vs. MT1-mCherry + MT1-MO | 0.4882 | n.s. |
| Control MO vs. MT1-MO | 0.0245 | \* |
| Control MO vs. MT1-mCherry + MT1-MO | 0.9803 | n.s. |
| MT1-MO vs. MT1-mCherry + MT1-MO | 0.0415 | \* |
| 8D |   | WT vs. Control MO | One-way ANOVA | 24 (WT), 23 (Control MO), 25 (MT1-MO), or 19 (MT1-mCherry + MT1-MO) nerve-muscle pairs | 3 | 0.9989 | n.s. | Sidak’s multiple comparisons test | 10.09, 3, 8 |
| WT vs. MT1-MO | 0.0129 | \* |
| WT vs. MT1-mCherry + MT1-MO | 0.9982 | n.s. |
| Control MO vs. MT1-MO | 0.0074 | \*\* |
| Control MO vs. MT1-mCherry + MT1-MO | 0.9504 | n.s. |
| MT1-MO vs. MT1-mCherry + MT1-MO | 0.0243 | \* |
| 9C | From aneural AChR clusters + diffuse AChRs | WT vs. Control MO | Two-way ANOVA  | From aneural AChR clusters + diffuse AChRs (without photobleaching): 15 (WT), 9 (Control MO), and 9 (MT1-MMP MO) nerve-muscle pairs; From diffuse AChRs (with photobleaching): 23 (WT), 13 (Control MO), and 8 (MT1-MMP MO) nerve-muscle pairs | 3 | >0.9999 | n.s. | Sidak’s multiple comparisons test | AChR source: 23.3, 1, 2Treatment: 10.47, 2, 4AChR source x Treatment Interaction: 9.249, 2, 4 |
| WT vs. MT1-MMP MO | 0.0255 | \* |
| Control MO vs. MT1-MMP MO | 0.0255 | \* |
| From diffuse AChRs | WT vs. Control MO | Two-way ANOVA  | 3 | 0.9996 | n.s. | Sidak’s multiple comparisons test |
| WT vs. MT1-MMP MO | 0.9994 | n.s. |
| Control MO vs. MT1-MMP MO | 0.9821 | n.s. |
| WT | From aneural AChR clusters + diffuse AChRs vs. From diffuse AChRs | Two-way ANOVA  | 3 | 0.0071 | \*\* | Sidak’s multiple comparisons test | Interaction: 7.342, 2, 6AChR source: 32.9, 1, 6Treatment: 12.9, 2, 6Subjects (matching): 0.8463, 6, 6 |
| Control MO | 0.0098 | \*\* |
| MT1-MMP MO | 0.9971 | n.s. |
| 10D | E13.5 | WT vs. MT1-MMP-/- | Two-way ANOVA  | 4 (E13.5, WT) and 5 (E13.5, MT1-MMP-/-), 5 (E18.5, WT), and 3 (E18.5, MT1-MMP-/-) embryos  | 3 | 0.0033 | \*\* | Sidak’s multiple comparisons test | Interaction: 8.001, 1, 13Stage: 367.8, 1, 13Genotype: 6.382, 1, 13 |
| E18.5 | WT vs. MT1-MMP-/- | 0.9746 | n.s. |
| 10E | E13.5 | WT vs. MT1-MMP-/- | Two-way ANOVA  | 0.065 | n.s. | Sidak’s multiple comparisons test | Interaction: 4.466, 1, 13Stage: 47.66, 1, 13Genotype: 28.51, 1, 13 |
| E18.5 | WT vs. MT1-MMP-/- | 0.0004 | \*\*\* |
| 10F | E13.5 | WT vs. MT1-MMP-/- | Unpaired t-test | 0.3167 | n.s. | / | / |
| E18.5 | WT vs. MT1-MMP-/- | 0.0002 | \*\*\* |
| 10G | E13.5 | WT vs. MT1-MMP-/- | Unpaired t-test | 0.0175 | \* | / | / |
| E18.5 | WT vs. MT1-MMP-/- | 0.0011 | \*\* |
| 7-S1A | 0 h | Control vs. BB-94 | Two-way ANOVA  | 18 (Control), 22 (BB-94), 20 (BB-2516) muscle cells | 3 | >0.9999 | n.s. | Dunnett's multiple comparisons test | Interaction: 3.599, 6, 171Timepoint: 336.8, 3, 171Treatment: 6.178, 2, 57Subjects (matching): 3.938, 57, 171 |
| Control vs. BB-2516 | >0.9999 | n.s. |
| 4 h | Control vs. BB-94 | 0.044 | \* |
| Control vs. BB-2516 | 0.092 | n.s. |
| 8 h | Control vs. BB-94 | 0.0058 | \*\* |
| Control vs. BB-2516 | 0.0106 | \* |
| 24 h | Control vs. BB-94 | <0.0001 | \*\*\*\* |
| Control vs. BB-2516 | 0.0004 | \*\*\* |
| 7-S1C | 8 h | Control vs. BB-94 | Two-way ANOVA  | 18 (Control), 22 (BB-94), 20 (BB-2516) muscle cells | 3 | 0.6465 | n.s. | Turkey’s multiple comparisons test | Time point: 3.804, 1, 2Treatment: 0.1945, 2, 4Time point x Treatment Interaction: 0.4187, 2, 4 |
| Control vs. BB-2516 | 0.8683 | n.s. |
| BB-94 vs. BB-2516 | 0.9071 | n.s. |
| 24 h | Control vs. BB-94 | 0.9812 | n.s. |
| Control vs. BB-2516 | 0.8743 | n.s. |
| BB-94 vs. BB-2516 | 0.7826 | n.s. |
| 7-S2B | 4 h | Control vs. Agrin | Unpaired t-test | 67 (Control, 4 h), 92 (Agrin, 4 h), 118 (Control, 8 h), and 93 (Agrin, 8 h) muscle cells  | 3 | 0.0076 | \*\* | / | / |
| 8 h | Control vs. Agrin | Unpaired t-test | 3 | 0.0005 | \*\*\* | / | / |

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