

Fig4 D**MUA-ACh**

| | | NREM | | | |
|----------------|------------------------|----------|------------------|--|--|
| Groups | Mean Diff. low thresho | Summary | Adjusted P Value | | |
| 0.5-1 vs. 1-2 | 0.4927 | Yes **** | <0.0001 | | |
| 0.5-1 vs. 2-3 | 0.4347 | Yes **** | <0.0001 | | |
| 0.5-1 vs. 3-10 | 0.8142 | Yes **** | <0.0001 | | |
| 1-2 vs. 2-3 | -0.05799 | Yes **** | <0.0001 | | |
| 1-2 vs. 3-10 | 0.3214 | Yes **** | <0.0001 | | |
| 2-3 vs. 3-10 | 0.3794 | Yes **** | <0.0001 | | |

| | | WAKE | | | |
|----------------|------------------------|----------|------------------|--|--|
| Groups | Mean Diff. low thresho | Summary | Adjusted P Value | | |
| 0.5-1 vs. 1-2 | 0.2126 | Yes **** | <0.0001 | | |
| 0.5-1 vs. 2-3 | 0.04149 | Yes **** | <0.0001 | | |
| 0.5-1 vs. 3-10 | -0.1058 | Yes **** | <0.0001 | | |
| 1-2 vs. 2-3 | -0.1711 | Yes **** | <0.0001 | | |
| 1-2 vs. 3-10 | -0.3183 | Yes **** | <0.0001 | | |
| 2-3 vs. 3-10 | -0.1473 | Yes **** | <0.0001 | | |

Fig4 E**MUA-OXT**

| | | Fig4C: NREM | | | |
|----------------|------------------------|-------------|------------------|--|--|
| Groups | Mean Diff. low thresho | Summary | Adjusted P Value | | |
| 0.5-1 vs. 1-2 | 0.1663 | Yes **** | <0.0001 | | |
| 0.5-1 vs. 2-3 | -0.2634 | Yes **** | <0.0001 | | |
| 0.5-1 vs. 3-10 | -0.8486 | Yes **** | <0.0001 | | |
| 1-2 vs. 2-3 | -0.4297 | Yes **** | <0.0001 | | |
| 1-2 vs. 3-10 | -1.015 | Yes **** | <0.0001 | | |
| 2-3 vs. 3-10 | -0.5852 | Yes **** | <0.0001 | | |

| | | Fig4C: WAKE | | | |
|----------------|------------------------|-------------|------------------|--|--|
| Groups | Mean Diff. low thresho | Summary | Adjusted P Value | | |
| 0.5-1 vs. 1-2 | 0.07758 | Yes **** | <0.0001 | | |
| 0.5-1 vs. 2-3 | 0.08098 | Yes **** | <0.0001 | | |
| 0.5-1 vs. 3-10 | 0.1389 | Yes **** | <0.0001 | | |
| 1-2 vs. 2-3 | 0.003395 | Yes **** | <0.0001 | | |
| 1-2 vs. 3-10 | 0.0613 | Yes **** | <0.0001 | | |
| 2-3 vs. 3-10 | 0.0579 | Yes **** | <0.0001 | | |