

**SUPPLEMENTARY TABLES****Table S1: Non-compartmental PK parameters of oral SENS-111 in the SAD study, arithmetic mean $\pm$ SD**

| Dose (mg) | C <sub>max</sub> (ng/mL) | T <sub>max</sub> <sup>†</sup> (h) | AUC <sub>0-72</sub> (ng/mL*h) | AUC <sub>0-inf</sub> (ng/mL*h) | t <sub>1/2</sub> (h) | Cl/F (L/h)     | Vd/F (L)       |
|-----------|--------------------------|-----------------------------------|-------------------------------|--------------------------------|----------------------|----------------|----------------|
| 100       | 105 $\pm$ 38             | 1.8 (1.5, 6.0)                    | 1935 $\pm$ 294                | 2276 $\pm$ 274                 | 29.9 $\pm$ 3.4       | 44.4 $\pm$ 4.7 | 1922 $\pm$ 332 |
| 200       | 286 $\pm$ 78             | 1.5 (1.0, 2.0)                    | 4158 $\pm$ 417                | 4519 $\pm$ 440                 | 22.2 $\pm$ 2.0       | 44.6 $\pm$ 4.3 | 1430 $\pm$ 182 |
| 300       | 456 $\pm$ 108            | 1.5 (0.5, 2.0)                    | 6709 $\pm$ 1421               | 7566 $\pm$ 1829                | 26.3 $\pm$ 4.0       | 41.2 $\pm$ 7.8 | 1545 $\pm$ 287 |
| 400       | 960 $\pm$ 574            | 1.5 (0.5, 4.0)                    | 11351 $\pm$ 3009              | 12284 $\pm$ 3405               | 21.8 $\pm$ 1.6       | 34.4 $\pm$ 8.2 | 1068 $\pm$ 204 |
| 500       | 1135 $\pm$ 430           | 0.5 (0.5, 2.0)                    | 15361 $\pm$ 3536              | 17419 $\pm$ 3936               | 27.8 $\pm$ 3.3       | 29.9 $\pm$ 6.5 | 1198 $\pm$ 271 |

<sup>†</sup> Median (min, max)**Table S2: Non-compartmental PK parameters of oral SENS-111 in the MAD studies, arithmetic mean $\pm$ SD**

| Dose (mg)    | Day | C <sub>max</sub> (ng/mL) | T <sub>max</sub> <sup>†</sup> (h) | AUC <sub>0-24</sub> (ng/mL*h) | AUC <sub>0-inf</sub> (ng/mL*h) | t <sub>1/2</sub> (h) | R <sup>#</sup> |
|--------------|-----|--------------------------|-----------------------------------|-------------------------------|--------------------------------|----------------------|----------------|
| 50<br>(N=9)  | 1   | 35.1 $\pm$ 12.9          | 4.0 (1.0, 6.0)                    | 457 $\pm$ 94.6                | 713 $\pm$ 105                  | 15.6 $\pm$ 3.2       | 2.0 $\pm$ 0.4  |
|              | 4   | 57.2 $\pm$ 13.4          | 4.0 (1.0, 8.0)                    | 913 $\pm$ 183                 | 1889 $\pm$ 483                 | 27.8 $\pm$ 3.1       |                |
| 100<br>(N=9) | 1   | 96.9 $\pm$ 15.3          | 1.5 (1.0, 6.0)                    | 1256 $\pm$ 127                | 1745 $\pm$ 228                 | 12.4 $\pm$ 1.7       | 2.0 $\pm$ 0.4  |
|              | 4   | 171 $\pm$ 35.2           | 1.5 (1.0, 8.0)                    | 2449 $\pm$ 502                | 4534 $\pm$ 1570                | 25.3 $\pm$ 5.5       |                |
| 150<br>(N=9) | 1   | 198 $\pm$ 70.9           | 1.0 (0.5, 4.0)                    | 1772 $\pm$ 418                | 2354 $\pm$ 593                 | 11.6 $\pm$ 1.1       | 1.8 $\pm$ 0.2  |
|              | 4   | 261 $\pm$ 87.0           | 1.5 (1.0, 6.0)                    | 3152 $\pm$ 727                | 5727 $\pm$ 1421                | 24.8 $\pm$ 2.1       |                |
| 200<br>(N=9) | 1   | 296 $\pm$ 102            | 2.0 (1.0, 6.0)                    | 3416 $\pm$ 653                | 4920 $\pm$ 1174                | 13.2 $\pm$ 2.3       | 2.7 $\pm$ 0.7  |
|              | 7   | 644 $\pm$ 275            | 1.5 (1.0, 6.0)                    | 9390 $\pm$ 3684               | 23513 $\pm$ 12367              | 47.6 $\pm$ 7.1       |                |
| 250<br>(N=9) | 1   | 517 $\pm$ 182            | 1.0 (0.5, 6.0)                    | 4662 $\pm$ 1019               | 6442 $\pm$ 1541                | 12.7 $\pm$ 1.8       | 2.6 $\pm$ 0.4  |
|              | 7   | 1088 $\pm$ 467           | 1.0 (0.5, 4.0)                    | 12174 $\pm$ 3345              | 28231 $\pm$ 9414               | 55.9 $\pm$ 13.5      |                |

<sup>†</sup> median (range)#accumulation ratio (AUC<sub>0-24</sub> at D4 or D7/AUC<sub>0-24</sub> at D1)

Phase 1 PK/PD study of SENS-111

Venail et al

**Table S3: Non-compartmental PK parameters of SENS-111 metabolites in the SAD study, arithmetic mean $\pm$ SD**

| Metabolite | Dose (mg) | C <sub>max</sub> (ng/mL) | T <sub>max</sub> <sup>†</sup> (h) | AUC <sub>0-72</sub> (ng $\cdot$ h/mL) | AUC <sub>0-inf</sub> (ng $\cdot$ h/mL) | t <sub>1/2</sub> (h) |
|------------|-----------|--------------------------|-----------------------------------|---------------------------------------|--|----------------------|
| UR-64167   | 100 (N=6) | 6.4 $\pm$ 2.0            | 2.0 (1.5, 6.0)                    | 128 $\pm$ 31                          | 164 $\pm$ 37                           | 36.9 $\pm$ 19.9      |
|            | 200 (N=6) | 14.0 $\pm$ 4.6           | 1.5 (1.0, 2.0)                    | 254 $\pm$ 41                          | 280 $\pm$ 49                           | 22.3 $\pm$ 4.3       |
|            | 300 (N=6) | 16.5 $\pm$ 2.6           | 1.8 (1.0, 2.0)                    | 308 $\pm$ 45                          | 356 $\pm$ 58                           | 28.2 $\pm$ 5.5       |
|            | 400 (N=6) | 37.3 $\pm$ 24.5          | 1.5 (0.5, 8.0)                    | 542 $\pm$ 85                          | 598 $\pm$ 87                           | 23.7 $\pm$ 3.3       |
|            | 500 (N=6) | 43.8 $\pm$ 25.9          | 1.0 (0.5, 2.0)                    | 769 $\pm$ 383                         | 869 $\pm$ 396                          | 27.6 $\pm$ 5.0       |
| UR-64250   | 100 (N=6) | -                        | -                                 | -                                     | -                                      | -                    |
|            | 200 (N=6) | 1.5 $\pm$ 1.4            | 2.0 (1.5, 4.0)                    | 13.7 $\pm$ 16.6                       | 31 $\pm$ 19                            | 45.3 $\pm$ 20.3      |
|            | 300 (N=6) | 2.5 $\pm$ 2.1            | 3.0 (1.5, 6.0)                    | 35 $\pm$ 38                           | 61 $\pm$ 39                            | 29.8 $\pm$ 24.5      |
|            | 400 (N=6) | 2.8 $\pm$ 1.8            | 3.0 (1.0, 8.0)                    | 41 $\pm$ 37                           | 55 $\pm$ 40                            | 30.9 $\pm$ 18.7      |
|            | 500 (N=6) | 6.6 $\pm$ 8.3            | 2.0 (1.5, 4.0)                    | 112 $\pm$ 162                         | 134 $\pm$ 174                          | 36.0 $\pm$ 30.0      |

<sup>†</sup> Median (min, max)**Table S4: Non-compartmental PK parameters of SENS-111 metabolites in the MAD study, arithmetic mean $\pm$ SD**

| Metabolite | Dose (mg) | Day | C <sub>max</sub> (ng/mL) | T <sub>max</sub> (h) | AUC <sub>0-t*</sub> (ng $\cdot$ h/mL) | AUC <sub>0-inf</sub> (ng $\cdot$ h/mL) | t <sub>1/2</sub> (h) |
|------------|-----------|-----|--------------------------|----------------------|---------------------------------------|--|----------------------|
| UR-64167   | 50 (N=9)  | 1   | 2.0 $\pm$ 0.3            | 4.0 (1.0, 6.0)       | 28.0 $\pm$ 2.9                        | 41.4 $\pm$ 5.1                         | 13.8 $\pm$ 1.7       |
|            |           | 4   | 3.3 $\pm$ 0.7            | 4.0 (1.0, 6.0)       | 79.3 $\pm$ 22.7                       | 104 $\pm$ 32.5                         | 26.3 $\pm$ 8.0       |
|            | 100 (N=9) | 1   | 4.9 $\pm$ 1.2            | 1.5 (1.5, 6.0)       | 66.4 $\pm$ 18.2                       | 93.1 $\pm$ 28.0                        | 12.5 $\pm$ 1.6       |
|            |           | 4   | 8.4 $\pm$ 2.6            | 2.0 (1.0, 8.0)       | 202 $\pm$ 83.3                        | 236 $\pm$ 112                          | 24.3 $\pm$ 6.0       |
|            | 150 (N=9) | 1   | 8.2 $\pm$ 2.7            | 1.5 (1.0, 4.0)       | 90.8 $\pm$ 19.6                       | 127 $\pm$ 30.3                         | 12.9 $\pm$ 1.8       |
|            |           | 4   | 11.7 $\pm$ 3.5           | 2.0 (1.0, 6.0)       | 266 $\pm$ 74.4                        | 310 $\pm$ 89.3                         | 27.1 $\pm$ 3.1       |
|            | 200 (N=9) | 1   | 15.5 $\pm$ 7.1           | 2.0 (1.0, 6.0)       | 193 $\pm$ 76                          | 285 $\pm$ 119                          | 13.9 $\pm$ 2.9       |
|            |           | 7   | 30.4 $\pm$ 15.9          | 1.5 (1.0, 8.0)       | 1174 $\pm$ 816                        | 1269 $\pm$ 870                         | 44.1 $\pm$ 15.3      |
|            | 250 (N=9) | 1   | 22.7 $\pm$ 15.3          | 1.5 (1.0, 6.0)       | 240 $\pm$ 97                          | 341 $\pm$ 122                          | 13.4 $\pm$ 2.9       |
|            |           | 7   | 30.4 $\pm$ 15.9          | 1.5 (1.0, 8.0)       | 1174 $\pm$ 816                        | 1269 $\pm$ 870                         | 44.1 $\pm$ 15.3      |
| UR-64250   | 50 (N=9)  | 1   | 0.6 $\pm$ 0.04           | 8.0 (4.0, 8.0)       | 1.3 $\pm$ 2.0                         | NC                                     | NC                   |
|            |           | 4   | 0.8 $\pm$ 0.2            | 4.0 (1.5, 6.0)       | 4.2 $\pm$ 5.2                         | NR                                     | NR                   |
|            | 100 (N=9) | 1   | 1.3 $\pm$ 0.6            | 4.0 (1.5, 4.0)       | 4.4 $\pm$ 6.0                         | NR                                     | NR                   |
|            |           | 4   | 1.5 $\pm$ 0.9            | 4.0 (2.0, 4.0)       | 10.6 $\pm$ 14.3                       | NR                                     | NR                   |
|            | 150 (N=9) | 1   | 1.2 $\pm$ 0.5            | 2.0 (1.5, 4.0)       | 6.1 $\pm$ 8.3                         | NR                                     | NR                   |
|            |           | 4   | 1.3 $\pm$ 1.0            | 4.0 (1.5, 6.0)       | 17.0 $\pm$ 22.7                       | NR                                     | NR                   |
|            | 200 (N=9) | 1   | 3.8 $\pm$ 5.2            | 4.0 (1.5, 6.0)       | 45.8 $\pm$ 67.3                       | NR                                     | NR                   |
|            |           | 7   | 8.2 $\pm$ 13.0           | 4.0 (1.5, 4.0)       | 292 $\pm$ 559                         | 368 $\pm$ 622                          | 26.7 $\pm$ 12.3      |
|            | 250 (N=9) | 1   | 1.6 $\pm$ 0.7            | 2.0 (1.5, 6.0)       | 16.6 $\pm$ 11.3                       | NR                                     | NR                   |
|            |           | 7   | 3.6 $\pm$ 1.4            | 4.0 (1.0, 4.0)       | 86.0 $\pm$ 53.2                       | 117 $\pm$ 64.5                         | 26.3 $\pm$ 12.9      |

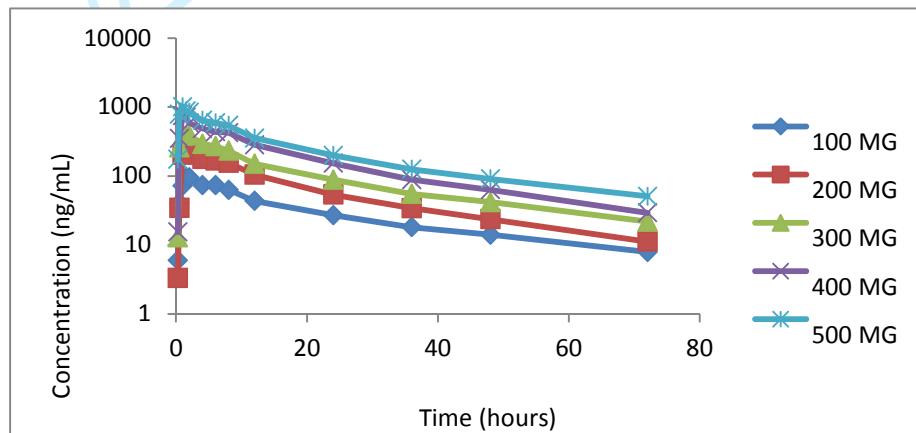
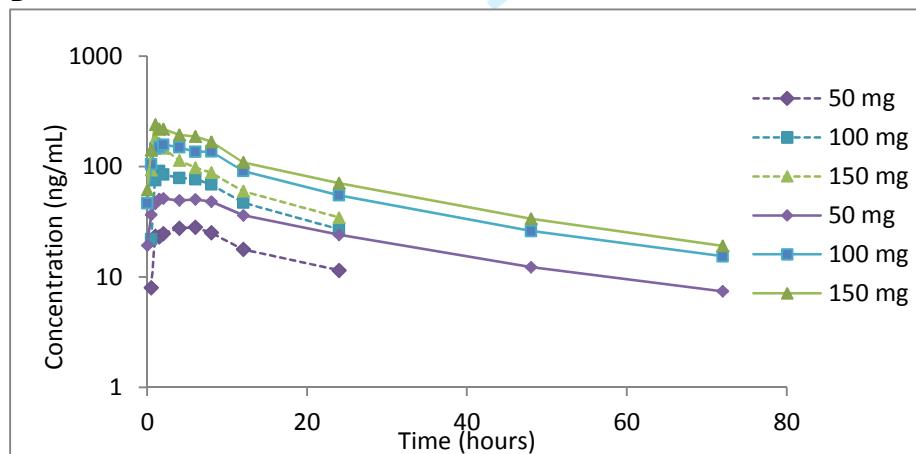
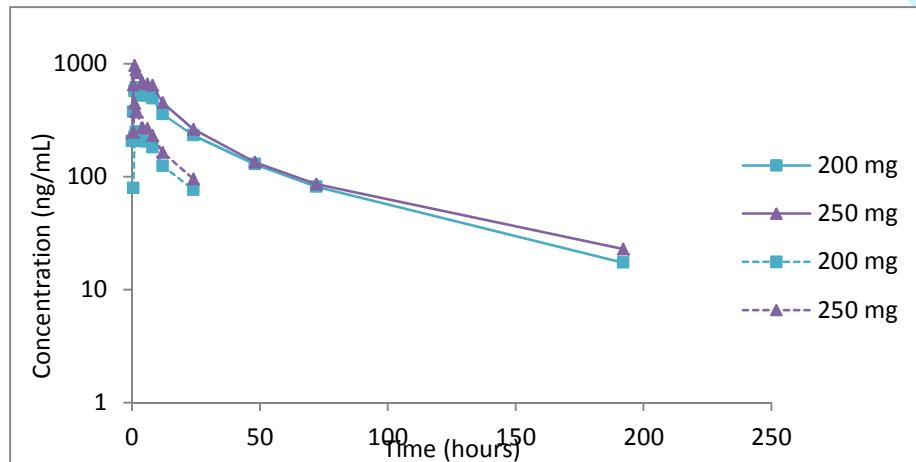
<sup>†</sup> Median (min, max)

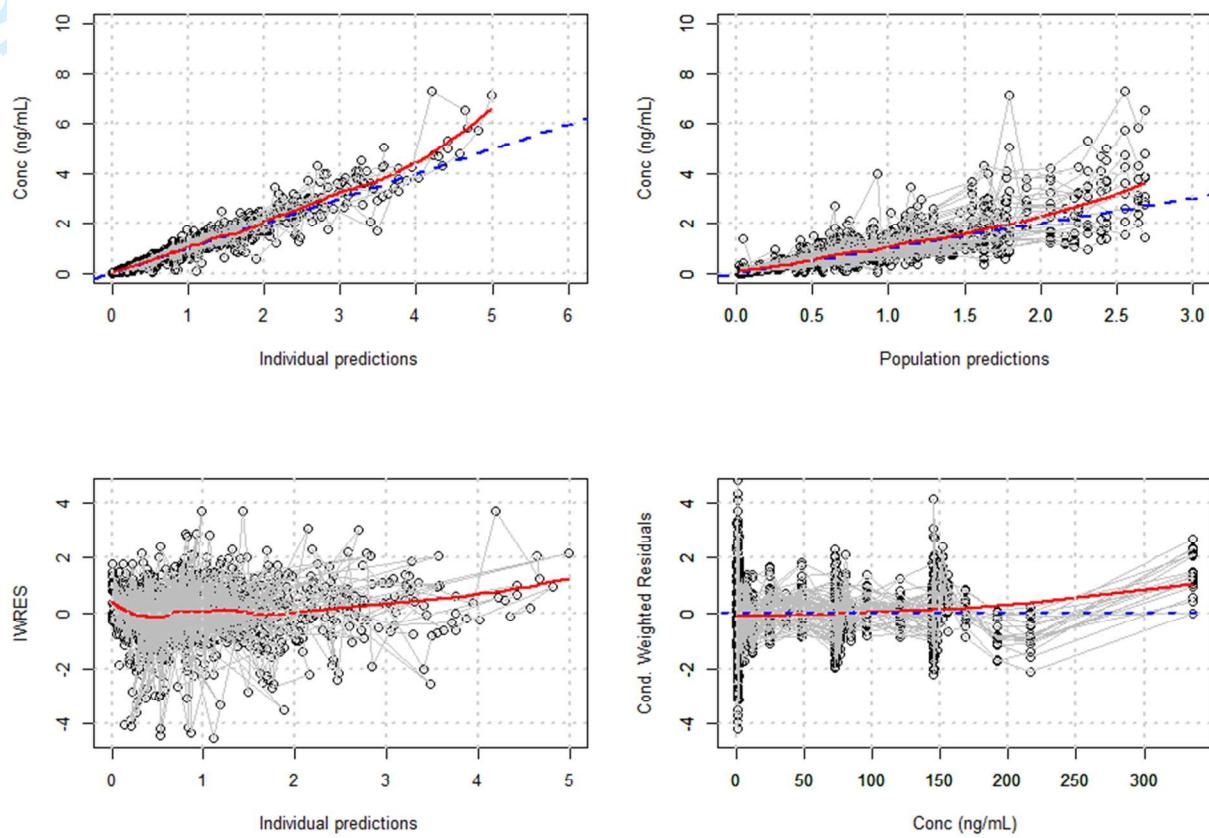
NC, not calculated; NR, not reached

\*AUC<sub>0-t</sub> = 24 h for Day 1, 72 h for Day 4, 196 h for Day 7

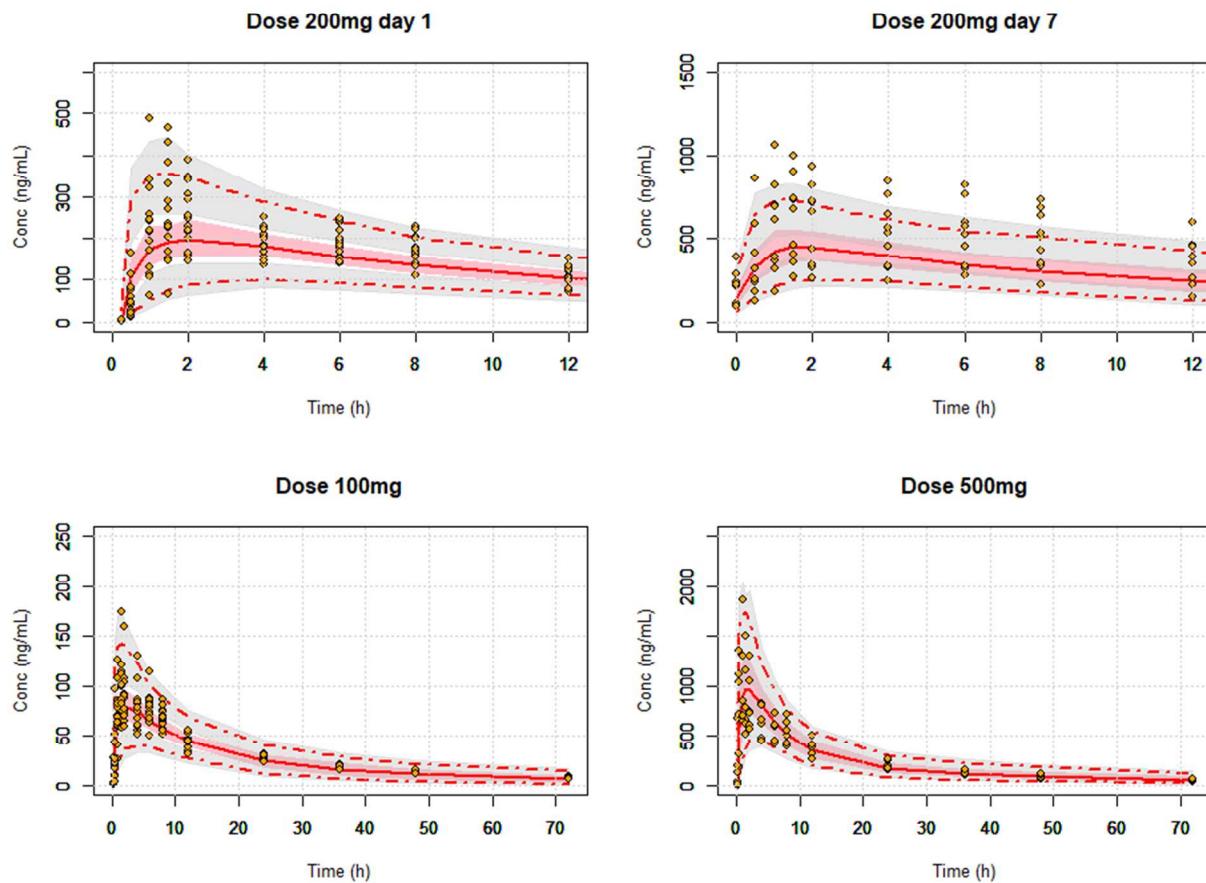
**SUPPLEMENTARY FIGURES**

**Figure S1: Mean (SD) plasma concentration-time profiles for SENS-111.** (A) for the SAD study on day 1; (B) for the 4-day MAD study after 1 day (dotted lines) and 4 days (solid lines); and (C) for the 7-day MAD study after 1 day (dotted lines) and 7 days (solid lines).

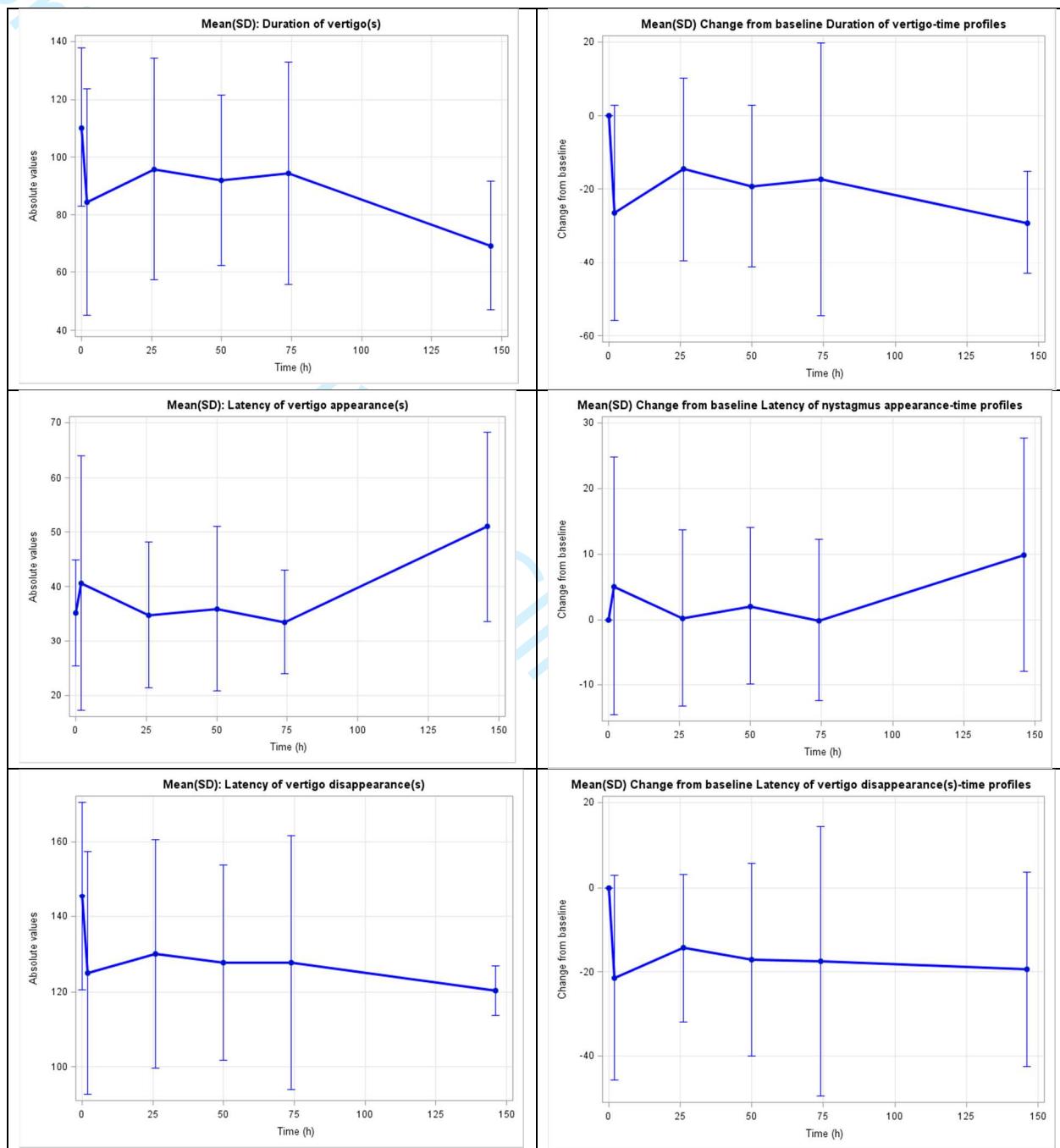
**A****B****C**

**Figure S2: Goodness of fit plots for SENS-111.**

**Figure S3: Visual predictive checks (VPCs) using untransformed data to estimate the time-varying change in SENS-111 exposure (200 mg on day 1 versus day 7) and dose-dependent SENS-111 exposure**



**Figure S4: Mean absolute and relative change from baseline over time with placebo treatment are shown for duration of vertigo, and latency of appearance and disappearance.**



**Figure S5: Boxplots of showing the relationship between vertigo duration, and latency of appearance and disappearance with level of SENS-111 exposure.**

