

**Supplementary Table 1.** Mean and SD of hearing thresholds

|         | 250 Hz    | 500 Hz    | 1 kHz     | 2 kHz     | 3 kHz     | 4 kHz     | 8 kHz     | PTA       |
|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Right   |           |           |           |           |           |           |           |           |
| tVNS    | 16.8±7.8  | 17.3±7.9  | 19.1±9.7  | 23.6±11.4 | 29.6±18.9 | 33.2±22.4 | 50.9±30.8 | 22.4±10.9 |
| tRNS    | 13.5±12.3 | 13.1±13.8 | 17.7±16.8 | 25.4±21.1 | 27.7±23.2 | 27.3±22.3 | 32.9±30.0 | 21.0±16.9 |
| p-value | 0.207     | 0.252     | 0.459     | >0.999    | 0.691     | 0.494     | 0.151     |           |
| Left    |           |           |           |           |           |           |           |           |
| tVNS    | 16.8±7.2  | 19.1±8.3  | 22.7±10.1 | 25.0±9.2  | 33.2±19.5 | 39.6±19.8 | 49.6±26.1 | 25.0±10.4 |
| tRNS    | 15.4±13.0 | 13.1±12.3 | 15.0±15.0 | 23.5±19.3 | 28.1±23.5 | 29.2±23.1 | 34.2±24.3 | 19.9±15.6 |
| p-value | 0.361     | 0.082     | 0.106     | 0.733     | 0.459     | 0.252     | 0.118     |           |

Data are presented as mean±SD. SD, standard deviation; tRNS, transcranial random noise stimulation; tVNS, transcutaneous vagus nerve stimulation; PTA, pure-tone averages across 500, 1000, 2000, and 3000 Hz