

**Table S1. DBS parameters**

| Subject | 3 months   |                |      |           |                |      |                 | 6 months   |                |      |           |                |      |                 | 12 months  |                |      |           |                |      |                 |
|---------|------------|----------------|------|-----------|----------------|------|-----------------|------------|----------------|------|-----------|----------------|------|-----------------|------------|----------------|------|-----------|----------------|------|-----------------|
|         | Right side |                |      | Left side |                |      | Diff<br>[Rt_Lt] | Right side |                |      | Left side |                |      | Diff<br>[Rt_Lt] | Right side |                |      | Left side |                |      | Diff<br>[Rt_Lt] |
|         | Amp        | Pulse<br>width | Rate | Amp       | Pulse<br>width | Rate |                 | Amp        | Pulse<br>width | Rate | Amp       | Pulse<br>width | Rate |                 | Amp        | Pulse<br>width | Rate | Amp       | Pulse<br>width | Rate |                 |
| 1       | 1.7        | 60             | 130  | 1.7       | 60             | 130  | 0               | 2          | 60             | 130  | 2         | 60             | 130  | 0               | 2.2        | 60             | 130  | 2.2       | 60             | 130  | 0               |
| 2       | 2.4        | 60             | 130  | 2.7       | 60             | 130  | -0.3            | 2.5        | 60             | 130  | 2.8       | 60             | 130  | -0.3            | 2.8        | 60             | 130  | 3.1       | 60             | 130  | -0.3            |
| 3       | 2.2        | 60             | 130  | 2.2       | 60             | 130  | 0               | 2.4        | 60             | 130  | 2.3       | 60             | 130  | 0.1             | 2.6        | 60             | 130  | 2.5       | 60             | 130  | 0.1             |
| 4       | 2          | 60             | 130  | 1.9       | 60             | 130  | 0.1             | 2.3        | 60             | 130  | 2.3       | 60             | 130  | 0               | 2.3        | 60             | 130  | 2.3       | 60             | 130  | 0               |
| 5       | 2.7        | 60             | 130  | 2.5       | 60             | 130  | 0.2             | 2.8        | 60             | 130  | 2.6       | 60             | 130  | 0.2             | 2.5        | 60             | 130  | 2.3       | 60             | 130  | 0.2             |
| 6       | 2.7        | 60             | 130  | 2.7       | 60             | 130  | 0               | 3          | 60             | 130  | 3         | 60             | 130  | 0               | 3.3        | 60             | 130  | 3.3       | 60             | 130  | 0               |
| 7       | 1.9        | 60             | 130  | 1.8       | 60             | 130  | 0.1             | 2.7        | 60             | 130  | 2.6       | 60             | 130  | 0.1             | 2.7        | 60             | 130  | 2.6       | 60             | 130  | 0.1             |
| 8       | 1.6        | 60             | 130  | 1.8       | 60             | 130  | -0.2            | 1.3        | 60             | 130  | 2.8       | 60             | 130  | -1.5            | 1.7        | 60             | 130  | 3.1       | 60             | 130  | -1.4            |
| 9       | 1.8        | 60             | 130  | 1.4       | 60             | 130  | 0.4             | 2.3        | 60             | 130  | 2         | 60             | 130  | 0.3             | 2.6        | 60             | 130  | 2.3       | 60             | 130  | 0.3             |
| 10      | 1.6        | 60             | 130  | 1.6       | 60             | 130  | 0               | 2.5        | 60             | 130  | 2.6       | 60             | 130  | -0.1            | 2.5        | 60             | 130  | 2.6       | 60             | 130  | -0.1            |
| 11      | 2.2        | 60             | 130  | 2.8       | 60             | 130  | -0.6            | 2.5        | 60             | 130  | 2.5       | 60             | 130  | 0               | 2.5        | 60             | 130  | 2.3       | 60             | 130  | 0.2             |
| 12      | 3          | 60             | 130  | 3         | 60             | 130  | 0               | 3.2        | 60             | 130  | 3         | 60             | 130  | 0.2             | 3.5        | 60             | 130  | 3.3       | 60             | 130  | 0.2             |
| 13      | 2.3        | 60             | 130  | 2.2       | 60             | 130  | 0.1             | 2.7        | 60             | 130  | 2.7       | 60             | 130  | 0               | 3          | 60             | 130  | 2.7       | 60             | 130  | 0.3             |
| 14      | 3.1        | 60             | 130  | 2.9       | 60             | 130  | 0.2             | 2.8        | 60             | 130  | 2.5       | 60             | 130  | 0.3             | 2.8        | 60             | 130  | 2.5       | 60             | 130  | 0.3             |
| 15      | 2.2        | 60             | 130  | 2.2       | 60             | 130  | 0               | 2.5        | 60             | 130  | 2.4       | 60             | 130  | 0.1             | 2.8        | 60             | 130  | 2.9       | 60             | 130  | -0.1            |
| 16      | 2          | 60             | 130  | 2.3       | 60             | 130  | -0.3            | 2          | 60             | 130  | 2.6       | 60             | 130  | -0.6            | 2          | 60             | 130  | 3         | 60             | 130  | -1              |
| 17      | 2.5        | 60             | 130  | 3         | 60             | 130  | -0.5            | 3.3        | 60             | 130  | 3.3       | 60             | 130  | 0               | 3.4        | 60             | 130  | 3.4       | 60             | 130  | 0               |
| 18      | 2.4        | 60             | 130  | 3.1       | 60             | 130  | -0.7            | 3.5        | 60             | 130  | 3.5       | 60             | 130  | 0               | 3          | 60             | 130  | 3.4       | 60             | 130  | -0.4            |
| 19      | 1          | 60             | 130  | 0.9       | 60             | 130  | 0.1             | 1.3        | 60             | 130  | 1.2       | 60             | 130  | 0.1             | 1.4        | 60             | 130  | 1.4       | 60             | 130  | 0               |

Amp: amplitude