## Supplementary Table 4. Clustered tics with frequency and location of premonitory urges (PUs)

| Type of tic | Location of tic       | Frequency | Commonly reported body area* (≥10%) | Frequency | Other body area, % on average (% range) | Frequency |
|-------------|-----------------------|-----------|-------------------------------------|-----------|----------------------------------------|-----------|
| **Motor tics** |                       |           |                                     |           |                                        |           |
| Face/Head   | Cheeks                | 288 (99)  | 142 (13.6)                          | 3.9 (0.2–9.8) | 205 (71.2)                             |           |
|             | Forehead              |           | 142 (13.6)                          |           |                                        |           |
|             | Eyes                  | 237 (81.4)| 100 (31.2)                          | 2.4 (0–7.5) | 152 (64.1)                             |           |
|             | Forehead              |           | 90 (28)                             |           |                                        |           |
| Mouth       | Mouth                 | 222 (76.3)| 92 (26.7)                           | 1.9 (0–3.5–5.5) | 150 (67.6)                             |           |
|             | Cheeks                |           | 90 (26.1)                           |           |                                        |           |
|             | Chin                  |           | 57 (16.5)                           |           |                                        |           |
|             | Cheeks                |           | 109 (22.6)                          | 3 (0–2–8.7) | 154 (67.2)                             |           |
| Head        | Neck                  | 200 (68.7)| 75 (18.5)                           | 2.3 (0–2–8.9) | 143 (71.5)                             |           |
|             | Forehead              |           | 69 (17)                             |           |                                        |           |
|             | Throat                |           | 61 (15.1)                           |           |                                        |           |
|             | Back of the head      |           | 59 (14.6)                           |           |                                        |           |
|             | Shoulders             | 119 (40.9)| 71 (28.4)                           | 1 (0–6.7) | 86 (72.3)                             |           |
|             | Arms                  |           | 23 (12.8)                           |           |                                        |           |
|             | Neck                  |           | 23 (12.8)                           |           |                                        |           |
|             | Throat                |           | 20 (11.1)                           |           |                                        |           |
|             | Chest                 |           | 19 (10.6)                           |           |                                        |           |
|             | Shoulders             | 198 (68)  | 114 (29.3)                          | 1.8 (0–5.9) | 161 (81.3)                             |           |
|             | Arms                  |           | 103 (26.5)                          |           |                                        |           |
|             | Shoulders             |           | 57 (14.7)                           |           |                                        |           |
| **Trunk**   | Abdomen               | 106 (36.4)| 73 (24.4)                           | 0.8 (0–4.2) | 93 (87.7)                             |           |
|             | Pelvis                |           | 47 (16.9)                           |           |                                        |           |
|             | Back                  |           | 43 (20)                             |           |                                        |           |
|             | Chest                 |           | 27 (12.6)                           |           |                                        |           |
|             | Legs/Foots            | 130 (44.7)| 81 (40.7)                           | 1.4 (0–5) | 118 (90.8)                             |           |
|             | Feet                  |           | 72 (36.2)                           |           |                                        |           |
|             | Legs                  |           | 72 (36.2)                           |           |                                        |           |
|             | Spinning around       | 12 (4.1)  | 4 (23.5)                            | 0.8 (0–5.9) | 11 (91.7)                             |           |
|             | Abdomen               |           | 3 (17.6)                            |           |                                        |           |
|             | Chest                 |           | 3 (17.6)                            |           |                                        |           |
|             | Forehead              |           | 3 (17.6)                            |           |                                        |           |
|             | Back of the head      |           | 2 (11.8)                            |           |                                        |           |
| **Copropraxia** | Pelvis               | 25 (8.6)  | 8 (27.6)                            | 1.8 (0–6.9) | 18 (72)                               |           |
|             | Hands                 |           | 6 (20.7)                            |           |                                        |           |
|             | Chest                 |           | 4 (13.8)                            |           |                                        |           |
|             | Abdomen               |           | 3 (10.3)                            |           |                                        |           |
| **Auto aggressive actions (self-injuries)** | Simple vocal tics | 35 (12)   | 10 (16.1)                           | 3 (0–6.5) | 33 (94.3)                             |           |
|             | Forehead              |           | 10 (16.1)                           |           |                                        |           |
|             | Chest                 |           | 9 (14.5)                            |           |                                        |           |
|             | Back of the head      |           | 7 (11.3)                            |           |                                        |           |
|             | Echopraxia            | 36 (12.4) | 7 (17.5)                            | 3.2 (0–7.5) | 27 (75)                               |           |
|             | Arms                  |           | 7 (17.5)                            |           |                                        |           |
|             | Legs                  |           | 5 (12.5)                            |           |                                        |           |
|             | Shoulders             |           | 5 (12.5)                            |           |                                        |           |
| **Vocal tics** | Pelvis                | 211 (72.5)| 74 (16.5)                           | 2.9 (0–2–9.1) | 169 (80.1)                             |           |
| Simple      | Mouth                 |           | 70 (15.6)                           |           |                                        |           |
|             | Nose                  |           | 57 (12.7)                           |           |                                        |           |
|             | Chest                 |           | 54 (12)                             |           |                                        |           |
| **Vocal tics in mouth** | Throat            | 201 (69.1)| 69 (18.6)                           | 2.6 (0–7.8) | 162 (80.6)                             |           |
|             | MOUTH                 |           | 67 (18.1)                           |           |                                        |           |
|             | Chest                 |           | 53 (14.3)                           |           |                                        |           |
|             | Chin                  |           | 40 (10.8)                           |           |                                        |           |
| **Vocal tics in nose** | Nose                 | 132 (45.4)| 53 (37.1)                           | 2.6 (0–9.8) | 87 (65.9)                             |           |
|             | MOUTH                 |           | 27 (18.9)                           |           |                                        |           |
| Complex     | MOUTH                 | 138 (47.4)| 39 (23.8)                           | 2.2 (0–7.9) | 105 (76.1)                             |           |
|             | Forehead              |           | 23 (14)                             |           |                                        |           |
|             | Throat                |           | 18 (11)                             |           |                                        |           |
|             | Cheeks                |           | 17 (10.4)                           |           |                                        |           |
|             | Chest                 |           | 17 (10.4)                           |           |                                        |           |

*absolute numbers of tic frequencies are based on the number of participants reporting the tic; †percentages of tic frequencies are based on the number of participants reporting the tic divided by the total number of participants; ‡"body area" refers to one of the 19 combined body areas; †‡absolute numbers of body areas affected by the PUs are based on the number of marks per body area for that tic; †§percentages of body areas affected by the PU are based on the number of marks per body area for that tic divided by the number of all body areas for that tic. Each body area was counted only once per participant per tic if the participant marked it several times; †¶absolute numbers of PU frequencies are based on the number of participants "always" or "sometimes" reporting a PU for that tic; †‡percentages of PU frequencies are based on the number of participants "always" or "sometimes" reporting a PU for that tic divided by the total number of participants reporting that tic. We clustered tics indicated in our study to those eight "common tics" as selected by Leckman et al.10 (given below in quotes) as follows: 1) facial grimacing and complex facial movements or expressions to "facial grimaces," 2) shoulder shrugging and shoulder gestures to "shoulder jerks," 3) head shaking/heistling/shrug/ nodding and head gestures to "headneck movements," 4) mouth movement, complex mouth movement, and lip movement to "mouth movements," and 5) coprolalia, palilalia, non-obscene socially inappropriate behavior, and echolalia to "words or phrases." The remaining three tics ("eye blinking," "throat clearing," and "sniffing") corresponded with each other in both studies.