Supplementary Information

fNIRS Optodes' Location Decider (fOLD): a toolbox for probe arrangement guided by brain regions-of-interest

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Supplementary datasets ("Dataset A1" and "Dataset A2") are included along the manuscript.

Each uploaded dataset corresponds to a different standardized reference for fNIRS optodes positioning (Dataset A1: 10-10 and Dataset A2: 10-5).

Datasets are Excel files with relevant results obtained for the parcellation atlases currently incorporated in the fOLD toolbox. For each parcellation, three sheets are presented:

1. Summary of landmarks derived from a given parcellation method (AAL2, AICHA, Brodmann, Jülich or LONI). The sheet name corresponds to the parcellation method (e.g. AAL2).

2. Detailed information of fNIRS channels with resulting specificity greater than 1% to each landmark listed in the first sheet. Included are sources and detectors positions based on the reference international system (10-10 or 10-5), resulting specificity (%), resulting inter-optode distance (mm) and channel's coordinates in MNI space (mm). The sheet name comprehends the numbering of the parcellation atlas followed by "_Lnd". For example, Brodmann (atlas #3) results are presented within sheet "3_Lnd".

3. Relevant information for each fNIRS channel considered within international system of reference (10-10 or 10-5): (a) source and detector positions, (b) resulting inter-optode distance (mm), (c) brain sensitivity (%), (d) MNI coordinates (mm), (e) list of covered landmarks according to the chosen parcellation atlas, and (f) resulting specificity (%). Shown are only landmarks that the fNIRS channel presented at least 1% of specificity. The sheet name comprehends the numbering of the parcellation atlas followed by "_Chn". For example, Juelich (atlas #4) results are presented within sheet "4_Chn".

Please refer to the original manuscript for detailed information on the head and parcellation atlases considered, definition of fNIRS positions as well as calculation of results presented in the supplementary datasets. For example, brain sensitivity is described in Equation 1, ROI specificity in Equation 2, and MNI space coordinates for a given channel is in Equation 3.