

Meeting WG3 Neuroimaging TINNET October 16, 2015

Present: Pim van Dijk (chair), Peyman Adjamian, Petra Bruggemann, Emile de Kleine, Dave Langers, Martin Meyer, Marzena Mielczarek, Patrick Neff, Winny Schlee, Holger Schulze, Nico Sollmann, Carlos Trenado, Elisabeth Wallhaeusser-Franke, Oliver Zobay, Elouise Koops, Małgorzata Wrzosek.

Welcome and introduction

Announcements on the current status of the TINNET project were given by Winny Schlee.

Plenary presentations members/subgroups

- *Winny Schlee*: update on current status of TINNET project
- *Dave Langers*: Guidelines for (f)MRI
- *Peyman Adjamian*: Guidelines for EEG/MEG
- *Pim van Dijk/ Winny Schlee*: announcements
- *Elouise Koops*: ethical considerations/privacy

Guidelines for (f)MRI [Dave Langers]

Goal: identify MR neuroimaging protocols and standardisation for tinnitus.

- Delphi technique: achieving consensus of experts on tinnitus via the Delphi questionnaire.
 - Round 1 (December 2014) - Informal e-mail inquiry: which protocols to use and which expert to include
 - Round 2 (April 2014) - Open format questionnaire: What issues to consider regarding the following 5 paradigms
 - Anatomical MRI
 - DTI/DWI
 - Spectroscopy
 - RS-fMRI
 - Sound evoked auditory fMRI
 - Round 3 (June 2015) – Closed format questionnaires: Which paradigms to continue with based on aggregated feedback of panel.
 - Round 4 (September 2015) – Open format questionnaire on general subject and technical characteristics for the chosen paradigms: Anatomical/RS-fMRI/Sound Evoked fMRI.

Guidelines for EEG/MEG [Peyman Adjamian]

Goal: guidelines for MEG as a way of temporally assessing the central changes that occur in tinnitus.

- Standardisation: Need guidelines on recording MEG/EEG data to minimize differences between datasets and resulting discordant results. Recommendations:
 - Recording spontaneous vs. evoked or induced activity
 - Recommended to record both with eyes open and with eyes closed (e.g. alternating 1 minute open, 1 minute closed for at least 5 minutes, during eyes open a fixation cross should be presented)



- Resting-State MEG questionnaire
 - Recommended to administer the ARSQ (Amsterdam Resting State Questionnaire) following completion of RS measurements. Potential to indicate reason for heterogeneity in data (e.g. including consumption of stimulants).
- Assessment of comorbidities
 - How to attribute effect on neural activity of comorbidities? Deliberate with WG1.

Ethical considerations

-To avoid identification of face from anatomical image MEG: co-register data first, de-identify after and submit data that is co-registered and de-identified to the database. In MRI deface T1.

- To allow for “open-access” publishing; ask database group (WG2) if it is possible to have a layer of the database specifically for this purpose. Data that needs to be publicly accessible can be put in this separate bank of the database for the duration needed.

Goal: To publish the EEG and MRI guidelines on the TINNET website before next summer.

Next meeting: 30 September 2016, Erlangen, Germany. The topic of the next meeting will be: how can we recruit these guidelines to perform a combined EEG-(f)MRI study?

NEXT MEETING: 30 September 2016 in Erlangen, Germany

