# Meeting WG3 Neuroimaging TINNET November 28, 2014

**Present:** Pim Van Dijk (chair), Sven Vanneste (co-chair, report), Arnaud Norena, Elisabeth Wallhäusser-Franke, Holger Schulze, Pia Lau, Winnie Schlee, Sean McGrath, Yossy Arzouan, Paola Perin, Cris Lanting, Emile de Kleine, Malgorzata Wrzosek, Martin Schecklmann, Martin Meyer, Peyman, Adjaman, Oliver Zobay, Petteri Hyvärinen, Dave Langers, Nico Sollman, Elouise Koops, Andrew Reid, Petra Brueggeman, Minke van den Berge.

## Welcome and introduction
A brief introduction was given about the aims/goals of Workgroup 3 Neuroimaging.

This working group will work on standards for neuroimaging studies and on large-scale analyses of neuroimaging data. Experts in this group will include clinical researchers, and specialists in neuroimaging methods including electroencephalography (EEG), and magnetic resonance tomography (MRI).

In order to identify the neurobiological mechanisms of the different forms of tinnitus, this working group will concentrate on the following topics:
1. Establishing standard operation procedures (SOPs) for data acquisition, analysis development, and standardization of innovative data-analyzing methods (e.g. connectivity analysis, individual component analysis),
2. Implementing neuroimaging data in the database,
3. Testing the neurobiological entity of clinically defined subtypes,
4. Testing neuroimaging as an endophenotypization strategy in tinnitus research,
5. Preparation and submission of grant proposals to national, European, and international funding agencies, in order to ensure continuous support of studies,
6. Organization of Short Term Scientific Missions, with the goal to train pre- and postdoctoral scientists in imaging acquisition and analysis,
7. Implementation of SOPs and imaging data on the COST Action website.

## Talks members
Members introduced themselves and some if the participants gave a brief introduction about their research:

- **Dave Langers:** Mapping tonotopic reorganisation in tinnitus.
- **Peyman Adjamian:** MEG/EEG standardisation and possible reasons for discordant results.
- **Holger Schulze** The Mongolian gerbil as a model for tinnitus research.
- **Martin Schecklmann:** Imaging studie in Regensburg.
- **Cris Lanting:** Two approaches to tinnitus imaging: connectivity analysis, and patient-controlled tinnitus loudness.
- **Winny Schlee:** Current development of a tinnitus database by TINNET Workgroup 2.

## Talk Andrew Reid
WG3 invited Dr. Andrew Reid - an experienced researcher related to imaging databases - presenting "Data basing and data processing solutions or large neuroimaging datasets". The speaker gave an elaborate talk on this topic, focusing on:
- Data storage: Storing & Back-up, folder organization,
- Quality control: visual inspection, Q/C (single to noise, classification, etc.,)/inter-raters reliability,
- Meta data: add behavioral/cognitive biomarkers → database tables,
- Processing pipelines: how analyzing the data, sequences etc.,
- Scale and scalability: How much data, follow-up data? How will you use the data (end goal),

- Administration: System, maintenance, development, training, and support,
- Data sharing & Ethics: anonymization (DICOM header, deface T1), subjects ID,
- Common issue: contribution and co-authors, documenting their data (organization), lack of interpretability (data dictionary),
- Existing solutions: xnat (nitrc), loni IDA (ADNI), loris.

**Plenary presentations of groups and roundup**
After this introductory talk, participants had a discussion in smaller groups about the identification of specific tasks/sub-workgroups and how to reach the specific aims introduced by Pim Van Dijk.

Different sub-workgroups will focus on writing
1. Guidelines for EEG/MEG. Coordination: Peyman Adjamian
2. Guidelines for rsfMRI/MRI. Coordination: Dave Langers
3. Overlap animal/human. Coordination: Arnaud Norena

***Work point:*** All group members will check with their IRB, in order to identify their "site or institutional" regulations for sharing data, and adding an already existing data.

Next meeting: 16 October 2015, Poznan, Poland