



COST Action CA16103

Magnetic Resonance Imaging Biomarkers for Chronic Kidney Disease (PARENCHIMA)

Minutes

Workung Group 2 Meeting
2017-09-07

Present: Angel Bayarri, Susmita Basak, Barbara Geist, Antonio Pinheiro, Andrej Materka, Georgious Menikou, Peter Rogelj, Martin Samal, Richard Janks, Frank Zöllner

Actions **highlighted**

1. **Introduction to Parenchyma and WG 2 (Frank):**
 - a. Powerpoint presentation, will be shared among WG2
2. **Update on Status of other WGs (Frank)**
3. **Brainstorming on WG2 1st year goals**
 - Database
 - Primary goal of the database -> for the development of data analysis methods and its testing/Validation but also to store data from multicentre studies arising from WG3
 - What data should be included? -> DICOM studies, clinical data and findings
 - Annotation of data sets
 - Legal rights for sharing data ? anonymization/ ethics
 - Source of data -> list of studies compile in WG3
 - Access to the database? -> Web access through a dedicated browser based web application or a simple ftp directory
 - Data for evaluation of algorithms when available.
 - Algorithms
 - A list of algorithms is needed including the following data:
 1. - purpose/ application
 2. - development platform / environment (matlab , python, c++...)
 3. - code availability and license (free?)
 4. - description and link to a paper if available
 - The algorithms will have to be evaluated / compared.

- We tend to prepare a conference challenge on the topic of algorithms for a specific purpose. It shall be extended into a webpage or project for Parenchyma evaluation.
- A survey shall be prepared for the Berlin meeting to collect algorithms used by meeting attendees.

4. Presentations of examples for databases/information systems in medical imaging

- Presentation of Database for renal nuclear medicine (Martin)
 - www.dynamicrenalstudy.org
 - Nice overview of the single examinations for browsing
- Presentation of Quimbim System (Angel)
 - Database and Processing Platform, online web-based
 - Extendable and customization possible
 - Data anonymisation while data upload
- Presentation of information and collaboration system for Radiotherapie (Peter)
 - Based on messaging and informal contacts between user
 - Data sharing and anonymization
 1. The sharing user can retain all patient information back
 2. The receiving partner only gets the data

5. Results:

a. Database

- Quimbim system provides a good starting point with needs for Parenchyma database
- check if a test system can be setup (Angel), WG2 participants will get account for testing
- check if there is room in the COST budget for maintenance cost (Frank), Angel will provide a quote

b. Algorithms

- Produce a survey and a list of existing software (Andrej, Barbara)
- Survey will be presented at Berlin Meeting
- Setup a challenge for validation/testing of algorithms ? to be further discussed

6. Visit to The Center for Advanced Preclinical Imaging.

- Newly installed facility for preclinical imaging (rodents)
- provides MRI, PET/SPECT/CT, optical imaging and MPI
- open for collaboration (contact can be established via Martin)