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Nationality: Spanish
ESR number within HealthPAC: ESR02
Research work-package:
Work-package leader:
Starting date ESR: April 2014
Supervisor and co-supervisor: Prf. Dr. John van Opstal and Prf. Dr. P. Medendorp
Host-institution - Department: **Radboud University - Faculty of Science -
Biophysics department**

RESEARCH PROGRESS REPORT 2

PROGRESS SUMMARY OF THE RESEARCH PROJECT/SUB-PROJECTS FROM THE STARTING DATE OF THE RESEARCH UNTIL 14-01-2018

Between 01-04-2014 and 31-03-2018 I had a chance to take advantage of the project called "Perception and Action in Health and Disease" within the Marie Curie Fellowship at Radboud University of Nijmegen, Nederland. During this period I have been under the scientific supervision of Prof. Dr. John Van Opstal at the Biophysics department of FNWI (Science faculty of Radboud University). In the course of this time I have been involved in multiples tasks and training activities as: courses, workshops, conferences, self-study, experiments, researching, designing, etc. I will not describe them in detail, instead of that I will just name them. Here and updated list of them:

- Psychophysics I (bachelor course physics at FNWI).
- Optimizing Cognitive Control (Master course at FNWI).
- HealthPAC Winter School (January, 2015).
- HealthPAC CoSMO Summer School (July, 2015).
- Moving Sounds, Moving Listeners, workshop (October, 2014).
- Bayesian workshop (August, 2015).
- International Conference on System Level Approaches to Neural Engineering (September 2015)
- ISH workshop (June, 2015).
- Donders Discussions (November, 2015).
- XSens and Phillips, partner visit. (2015).
- Cuda course in Oxford. (June 2016).
- Sensorymotor Lab, University of Zurich. Internship. (June-July 2017)
- Design and development of an *Eye-Tracker* and a *Head-Tracker* device with Bachelor and Master students.

Research projects that I am at this moment working on:

- On the generation of spectral-shape stimuli for sound localization in the median plane: I (by using Principal Component Analysis)
- On the generation of spectral-shape stimuli for sound localization in the median plane: II (by using Genetic Algorithms)
- Dissociating weighted percepts in sound localization
- Dynamic sound localization on the horizontal plane

Research projects on standby:

- Dissociating sound source motion from self-motion during passive self-motion (started in Zurich. My intention is to finish it in Nijmegen along 2018 when the vestibular chair is ready)
- Dynamic sound localization, on the horizontal plane, by using weighted filtered (HP) stimuli
- An Eye-Head tracker device for double-step paradigms (Probably along 2018)