

# Ph.D Scholarship Université Côte d'Azur (Nice, France)

Non-pharmacological interventions to treat apathy and prevent loss of autonomy in subjects with minor neurocognitive disorders

The **Université Côte d'Azur** (Nice, France) is offering a fully funded 3-year Ph.D. scholarship in the field of Neurodegenerative diseases in the aging process.

1. LABORATORY	2. THESIS DIRECTOR
<u>CobTek (main)</u>	<u>Main PI : Pr Philippe Robert</u>
<u>LAHMESS</u>	<u>Co-PI: Pr Raphael Zory</u>
	<u>Co-PI: Dr Valeria Manera</u>
Potentials collaborations :	<u>Keywords</u> :
	<u>Aging</u>
	Neurodegenerative disease

## 3. TITLE

NON-PHARMACOLOGICAL INTERVENTIONS TO TREAT APATHY AND PREVENT LOSS OF AUTONOMY IN SUBJECTS WITH MINOR NEUROCOGNITIVE DISORDERS

#### 4. SUMMARY

Due to global population aging, the number of people over 65 years old is rapidly increasing worldwide. So far there is no cure for dementia, but multi-domain interventions (combing physical activity, cognitive stimulation, and management of cardiovascular risk factors) targeting preclinical stages are showing promising results, suggesting that dementia prevention is a concrete option. The thesis project will focus on the relationships between the various clinical dimensions of fatigue and apathy in elderly subjects with minor neurocognitive disorders (minor NCD) and on the effects of non-pharmacological interventions (trans cranial electric stimulation tDCS and physical activity) For this, three secondary objectives will be addressed in 3 experimental protocols:

**Research objective #1:** Determine the effects of apathy on the different forms of fatigue (neuromuscular fatigability and perceived fatigue) in elderly subjects with minor NCD



**Research objective #2:** Determine the short-term acute effects of tDCS on apathy and on different forms of fatigue (neuromuscular and perceived fatigue) in elderly subjects with minor NCD.

**Research objective #3:** Compare the effects of tDCS vs Physical Activity on apathy, fatigue and quality of life in elderly subjects with minor NCD.

During the 3 years thesis: the PhD student will assess these problematics by focusing on Apathy, Fatigue and fatigability tDCS.

The PhD student will be involved in the literature review, the writing and submission of the ethical protocols, the data collection for the three experimental studies, and the dissemination of the results through conference presentations and publications of research papers.

## **5. DESIRED CANDIDATE PROFIL**

- Background in psychology, neuroscience, sports sciences or engineering preferred but not mandatory
- Fluent in french since there will be a regular interaction with French patients.
- Clinical experience desired, especially with older patients.
- Showing interest in physical sciences and information technology so as communication

## 6. HOW TO APPLY

Files including transcripts from both bachelors and masters degree (mention honors if it applies), GPA and ranking (if any) along with a cover letter stating why they should be considered for that thesis offer, in PDF format needs be sent to Valérie HIZEBRY project manager (valerie.hizebry@univ-cotedazur.fr) or Inès GALTIER D'AURIAC, assistant project manager (Ines.dauriac@univ-cotedazur.fr) no later than Saturday, August 15th, 2020. Audition will be done in 14-18<sup>th</sup> September.

## 7. FINANCIAL SUPPORT

The PhD thesis is a 3 years program fully funded with a monthly income of 2000 euros by the Graduate School of Health Science Ecosystems - HEALTHY.

## 8. CONTACT

For any questions, please contact Valérie HIZEBRY project manager (valerie.hizebry@univ-cotedazur.fr) and Inès GALTIER D'AURIAC, assistant project manager (Ines.dauriac@univ-cotedazur.fr).