Short term scientific mission announcement for Grant period 4

Title:
Tinnitus and hyperacousis in professional musicians and sound engineers

Supervisor:
Associate Professor Thanos Bibas

Host:
A' ORL University Clinic, National and Kapodistrian University of Athens, Greece

Goal of the Short Term Scientific Mission:

The 1st University Department of Otolaryngology (AORL) was established in 1939 at the Hippokrateio Hospital in Athens, and it is the largest Otolaryngology Department in the country. It provides tertiary clinical services for all major subspecialties, including Otology & Neurotologic surgery, Audiology, Head & Neck Oncology, Lateral Skull Base Surgery, Rhinology and Laryngology. It is also one of the Cochlear Implant Centres in Athens. Additionally, the Audio-Vestibular Laboratory focuses on the assessment of hearing and balance disorders using the latest technology, and is active in audiological and vestibular research.

The A' ORL University Clinic, along with nine other organisations, have participated in two FP7 European projects including a three-year research concerning the modeling of the cochlea and a decision support system for primary and secondary care physicians regarding diagnostic evaluation, behavior prediction and effective management of balance problems. Two different research projects are in progress: a clinical study to investigate the regeneration of the cochlea hair cells, and a project that supports big data analytics that enables the collection and analysis of heterogeneous data related to hearing loss and holistic hearing loss management policies.

The goals of the scientific mission are the following: the grantee will attend the otology clinic and theatre list, as well as the musicians' clinic and become familiar with research projects. In regards to the otology clinic, the grantee will become familiar with the assessment of acute or chronic inner ear diseases. Theatre list includes surgery for cholesteatomas, otosclerosis and cochlear implantation. Follow up clinic assesses hearing impairment and changes in their initial symptoms after the therapeutic intervention or consultation. More audiometric tests in free field are also available.

Additionally, musicians' clinic is multidisciplinary and the team includes otolaryngologists, audiologists and physiotherapists. At least 50% of musicians suffer from tinnitus and 45% from hyperacousis, percentages

higher than those occurring amongst non-musicians. Audiometric tests beyond classical audiometry are necessary for the hearing assessment of musicians. Musicians undergo otoacoustic emissions test and psychoacoustic tuning curves tests. There is a five year clinical experience for the above tests and more than 1300 curves have been collected so far.

What we can offer to the grantee:
The grantee will become familiar with both simple and more advanced audiometric tests, including in depth education on psychoacoustic tuning curves and the suppression TEOAE test. The alteration in tinnitus and hyperacousis following music exposure and acoustic trauma and its impact on the functional hearing musicians or sound engineers.
The researcher will also become adept at managing patients who underwent otologic surgery and will be trained in using research techniques.

Requirements of the grantee:
Trainee in otolaryngology and previous working experience with tinnitus, research projects, as well as data entry and questionnaires.

Duration: The duration is 6 weeks

STSM supervisor's contact information:
thanosbibas67@gmail.com

How to apply for the STSM
Please contact thanosbibas67@gmail.com in the first instance.

After completion of the STSM the grantee is required to submit a scientific report (3-4 pages) on the visit within 30 days after end of the stay. Please submit the report to the STSM coordinator:
malgorzata.wrzosek@amu.edu.pl