

## **UNITI - The EU funds another project on interdisciplinary tinnitus research**

EUR 6 million for the development of new research and treatment methods for tinnitus

The EU is funding a new collaborative project to research new treatments for chronic tinnitus. 'UNITI', the name of the project standing for 'Unification of Treatments and Interventions for Tinnitus Patients' (grant no. 848261), will carry out the largest European clinical study on tinnitus to date. The aim is to find out which patient groups benefit most from which treatment methods. The data from the clinical study will be combined with genetic data, medical and audiological investigations and existing databases to develop a computer model that predicts the best possible therapy. In the course of UNITI, combinations of several treatment methods will be systematically tested for the first time.

In Europe, around 42 million people suffer from chronic tinnitus. The annoying ringing of the ears leads to a lasting reduction in the quality of life of many people affected. It affects more than 10% of the general population based on large independent epidemiological studies, while 1% of the population considers tinnitus to be their main problem affecting their health. The scale of impairments ranges from 'not at all affected to slightly affected' to 'very severely affected' and sometimes even to the suicidal tendencies of individual sufferers. A generally effective treatment method for the very individual clinical picture does not yet exist. It is therefore necessary to identify the best treatment strategy for each individual patient group.

PD Dr. Winfried Schlee, psychologist at the Clinic and Policlinic for Psychiatry and Psychotherapy of the University of Regensburg at the District Hospital, explains: 'Most therapies often only target certain aspects of a disease without achieving complete control or the best possible results for the patient. They are therefore only partially effective and neglect important factors that play a role in the pathophysiology of the disease. However, tinnitus is a heterogeneous phenomenon and complex in many ways. This complexity is the real challenge to identify the most effective therapeutic measures. With UNITI, we now have the opportunity to deliver the best possible treatment to each patient group.'

This will be done by analysing clinical, epidemiological, medical, genetic and audiological data, including signals reflecting ear-brain communication, from existing databases. Predictive factors for different patient groups will be extracted and their prognostic relevance validated in a multi-center, randomized clinical trial. Different patient groups receive a combination of therapies that target both auditory and central nervous aspects.

'I am very pleased that the EU continues to support our research. Together with excellent partners, we are thus coming much closer to achieving our goal of an effective treatment strategy for tinnitus', said Schlee.

The UNITI research network brings together an interdisciplinary team of researchers and clinicians from Belgium, Germany, Greece, Italy, Spain, Sweden, Switzerland, Hungary and Cyprus. Specialists from the fields of psychiatry, psychology, audiology, epidemiology, genetics, software development, data mining, medical engineering and neuroscience work together. PD Dr. Winfried Schlee from the University of Regensburg takes over the

leadership of the consortium. At the Tinnitus Centre Regensburg, headed by Prof. Dr. Berthold Langguth, patients with chronic tinnitus have been treated for more than 10 years. At the same time, intensive research is being conducted into the causes and treatment options of the clinical condition. With the charitable Tinnitus Research Initiative (TRI) Foundation, the Regensburg research group is also promoting the international networking of tinnitus researchers.

UNITI already is the second European collaborative project on chronic tinnitus under the management of the University of Regensburg. Since March 2017, the EU has also funded the graduate school 'European School for Interdisciplinary Tinnitus Research' (ESIT) (grant no. 722046).

## UNITI Partners

### Academic Partners

- Regensburg (DE): University Hospital, University, medBo Bezirksklinikum
- Berlin (DE): Charité University Hospital
- Magdeburg (DE): Otto-von-Guericke University
- Wuerzburg (DE): Julius-Maximilians University
- Granada (ES): University of Granada, Fundación Pública Andaluza para la Investigación Sanitaria de Andalucía Oriental
- Athens (GR): Institute of Communication and Computer Systems (ICCS), National Technical University Athens, National and Kapodistrias-University Athens
- Leuven (BE): Katholieke Universiteit
- Milan (IT): Istituto di Ricerche Farmacologiche Mario Negri
- Stockholm (SE): Karolinska Institutet

### Industrial Partners

The industrial partners will be responsible for the areas of data security, data evaluation and the provision of technologies

- Limassol (CY): Vilabs LTD
- Zug (CH): Sphynx Technology Solutions AG
- Budakalsz (HU): Zeincro Kft.

Patient Organisations (Advisory Board):

- Tinnitus Research Initiative (DE)
- Tinnitus Hub (UK)
- Tinnitus Selbsthilfegruppe „Hast Du Töne“ (DE)

## About UNITI

The EU-funded project 'Unification of Treatments and Interventions for Tinnitus Patients (UNITI)' aims at an individualized treatment of tinnitus. An interdisciplinary network of basic researchers and clinicians uses existing databases in Europe to develop a calculation model able to predict the best possible treatment option for the individual patient. Clinical studies are conducted to empirically evaluate this calculation model.

Further information about UNITI can be found accessing the project website:  
<http://uniti.tinnitusresearch.net>.