Auris Medical News Release

June 26, 2012 – Key results from Auris Medical's phase IIb study of AM-101 in acute inner ear tinnitus presented at international conference

Key results from Auris Medical's phase IIb study with AM-101, a novel intratympanic (i.t.) treatment for acute inner ear tinnitus, were presented at the recent 6th International TRI Tinnitus Conference in Bruges, Belgium. The study demonstrated that the treatment was well tolerated and safe and showed a statistically significant reduction in various tinnitus measures as compared to placebo. The outcomes were presented by Prof. Paul van de Heyning, head of the Department of Otorhinolaryngology at Antwerp University Hospital and one of the coordinating investigators of the study.

The double-blind, randomized, placebo-controlled, parallel-dose phase IIb study with AM-101 was conducted in Germany, Belgium, Poland and the Netherlands, involving almost 30 sites. A total of 248 patients suffering from persistent acute inner ear tinnitus were randomized to receive 3 i.t. injections of either AM-101 at 0.27 or 0.81 mg/ml or placebo over 3 consecutive days. Their tinnitus had to be triggered by acute acoustic trauma, sudden deafness (idiopathic sudden sensorineural hearing loss, ISSNHL) or otitis media and to be no older than 3 months. The clinical trial evaluated the safety and local tolerance of AM-101 and various efficacy outcomes. Study participants were monitored over 90 days.

The safety assessment of AM-101 in the phase IIb study showed no drug-related impact on hearing function. Anticipated adverse events related to the procedure of i.t. injection were of transient nature and occurred in moderate to low numbers. In terms of efficacy, the study demonstrated a dose-dependent improvement in various measures of the tinnitus symptom and its impact. Patients suffering from acute tinnitus with established cochlear origin (i.e. after noise trauma or otitis media) who received AM-101 at 0.81 mg/ml showed a statistically significant improvement ($p < 0.05$ or < 0.01) in tinnitus loudness, annoyance as well as tinnitus-related sleep difficulties and activity and participation limitations (TBF-12 questionnaire). In most cases, the treatment effect started to appear within a few days from administration and continued to increase over the follow-up period. At Day 90, average reductions from baseline levels exceeded 50% for subjective loudness, annoyance and sleep difficulties and close to 50% for the TBF-12 score. Effects were somewhat less pronounced in patients with bilateral rather than unilateral tinnitus since only one ear was treated in the study as a precautionary safety measure. Efficacy outcomes with patients suffering from tinnitus related to ISSNHL were not conclusive for that subgroup overall, owing to an unexpectedly large rate of spontaneous recovery.

"The outcomes from the phase IIb study established proof of concept for AM-101's efficacy in the treatment of acute inner ear tinnitus," stated Prof. van de Heyning. "The robust and clinically meaningful improvements observed both for tinnitus loudness and patient-perceived tinnitus impact, as well as the good acceptance and tolerance of the treatment by patients, appear very promising." Based on the positive outcomes from the phase IIb study, Auris Medical is moving ahead with the clinical development of AM-101, and is currently in discussion with regulatory agencies on the design for the planned phase III studies. "The phase IIb trial confirmed the importance of a targeted approach to tinnitus treatment, given the many different aspects of this bothersome symptom," stated Thomas Meyer, Auris Medical's founder and Managing

Director. He added: "The trial provided us with a wealth of data and insights into AM-101's therapeutic benefits and safety, which together with the outcomes from the currently ongoing TACTT1 study and the input from regulatory agencies will be essential for the appropriate design of the confirmatory phase III studies and the path towards marketing approval."

More detailed information on the phase IIb clinical trial will be published in a scientific journal.

About acute inner ear tinnitus

Tinnitus, the perception of sound without external acoustic stimulation, is a symptom common to various ear or other diseases. Inner ear tinnitus may be provoked by various injuries to the cochlea, the organ of hearing, such as overexposure to noise or disruptions in its blood supply. It may be short and just transitory; however, it may also become permanent. Tinnitus of less than three months of duration is considered acute, while tinnitus that is older than one year is considered chronic.

Inner ear tinnitus may be only a slight nuisance, but often it has a serious impact on the ability to sleep, relax, or concentrate, or it may lead to tiredness, irritation, nervousness, despair, frustration, or even depression. As of today, there exists neither a universal standard of care for acute inner ear tinnitus, nor a truly proven, effective treatment method.

About AM-101

AM-101 contains a small molecule that selectively blocks N-methyl-D-aspartate (NMDA) receptors. Emerging evidence suggests that NMDA receptors in the cochlea play a major role in the occurrence of tinnitus following inner ear excitotoxicity, which is characterized by excessive synaptic release of glutamate, the principal neurotransmitter in the auditory system. Cochlear excitotoxicity may be triggered by, for example, trauma (e.g. exposure to excessive noise), neuroinflammation, disturbances in inner ear blood supply (anoxia/ischemia), or the administration of certain ototoxic drugs. It has been hypothesized that the upregulation of NMDA receptors induced by cochlear excitotoxicity is responsible for aberrant excitation of auditory nerve fibres, which is perceived as tinnitus.

The development of AM-101 is based on research conducted at the INSERM Institute for Neurosciences of Montpellier, France. The clinical development of AM-101 was initiated by Auris Medical in 2007. A phase II study (TACCT1) is currently ongoing in the USA, Belgium and Germany. Patents have been granted in more than 30 countries worldwide to date.

About Auris Medical

Auris Medical is a Swiss biotechnology company developing specific pharmaceutical compounds for the prevention or treatment of inner ear disorders, an area of great unmet medical need. Around the world, many million people are permanently suffering from severe hearing loss and tinnitus. Truly effective and safe treatments for these disorders are still lacking. Auris Medical is currently focusing on the development of treatments for acute inner ear tinnitus (AM-101) and for acute sensorineural hearing loss (AM-111).

Contact:
Dr. Thomas Meyer, Managing Director, telephone +41 61 201 13 50, tm@aurismedical.com