Press release

Sensorion Announces Approval to Initiate Lead Gene Therapy Candidate SENS-501 (OTOF-GT) into a Phase 1/2 Clinical Trial in some European Countries

1/19/2024

- **Sensorion has received approval to initiate Phase 1/2 clinical trial of SENS-501 (OTOF-GT) in France as first country**
- **SENS-501 is Sensorion's lead gene therapy candidate. It aims at restoring hearing in patients with mutations in the OTOF gene, suffering from severe to profound hearing loss. It has been developed in the frame of the strategic partnership with the Institut Pasteur**
- **Audiogene, the Phase 1/2 clinical trial sponsored by Sensorion aims to evaluate the safety, tolerability and efficacy of SENS-501 in young children**

MONTPELLIER, France--(BUSINESS WIRE)-- Regulatory News:

Sensorion (FR0012596468 – ALSEN) a pioneering clinical-stage biotechnology company which specializes in the development of novel therapies to restore, treat and prevent within the field of hearing disorders, today announces that it has received approval for its Clinical Trial Application (CTA) to initiate a Phase 1/2 clinical trial of SENS-501 (OTOF-GT), in France. The conclusion of the Part I of the assessment report according to regulation EU 536/2014 covering France, Italy and Germany is that the conduct of the clinical trial is acceptable.

The phase 1/2 clinical trial (Audiogene) aims to evaluate the safety, tolerability, and efficacy of intra-cochlear injection of SENS-501 for the treatment of OTOF gene-mediated hearing impairment in paediatric patients aged 6 to 31 months at the time of gene therapy treatment. Targeting the first years of life, the time period when the auditory system plasticity is optimal, will maximize the chances of these young children with pre-lingual hearing loss to acquire normal speech and language. Audiogene will also assess the clinical safety, performance, and usability of the administration device system under development in partnership with EVEON. The design of the study will consist of two cohorts of 2 doses followed by an expansion cohort at the selected dose. While the safety will be the primary endpoint for the dose escalation cohort , the auditory brainstem response (ABR) will be the primary

efficacy endpoint of the dose expansion cohort. The CTA approval follows extensive preclinical studies assessing the safety and efficacy of SENS-501 and successful manufacturing of the gene therapy Drug Product for the clinical trial. Sensorion will communicate about the first patient in the course of H2 2024.

Nawal Ouzren, Sensorion's Chief Executive Officer, said: "Securing approval to start the phase 1/2 clinical trial for SENS-501 marks a significant milestone for Sensorion and confirms our position of a leading company in the emerging field of gene therapies for hearing loss. Hearing loss caused by mutations of the gene encoding for otoferlin is a challenging disorder and there are no approved curative treatments for children with congenital deafness, so this is a significant unmet medical need. We look forward to continuing to work with healthcare providers, regulatory authorities, patient groups to address unmet and underserved medical needs in the hearing space."

Professor Natalie Loundon, M.D., Director of the Center for Research in Pediatric Audiology, Pediatric Otolaryngologist and Head and Neck Surgeon, Necker Enfants Malades, AP-HP, in Paris, France, Coordinating Investigator of the Audiogene clinical study, commented: "SENS-501 represents a hope for numerous children born with deafness linked to a defect in the otoferlin gene and for whom no curative treatment exists today. The administration of a single-injection therapy to very young children requires state-of-the-art hospital technical platform and health care givers team familiar with the handling of gene therapies. In keeping with our philosophy of supporting innovation wherever children's medical needs go unmet, we are delighted to be fully involved from the very beginning in this pioneering clinical trial."

Sensorion's SENS-501 (OTOF-GT) dual vector AAV gene therapy development program aims to restore hearing in patients with mutations in the gene coding for otoferlin protein who suffer from severe to profound sensorineural prelingual non-syndromic hearing loss. Sensorion's lead gene therapy program has been developed as part of its collaboration focused on the genetics of hearing with the Institut Pasteur, which has been initiated in 2019.

The Genetics and Physiology of the Hearing Unit of the Institut Pasteur, led by Professor Christine Petit, MD, PhD, has developed world-class expertise over the last 25 years in the molecular physiology and physiopathology of the hearing system. Recent advances, conducted alongside Saaid Safieddine, PhD, have led to the development of the gene therapy product SENS-501.

Professor Christine Petit, Professor at the Institut Pasteur and Professor Emeritus at the Collège de France, France, Winner of the Kavli Prize in 2018, commented: "This regulatory green light for the inclusion of patients in France in one of the world's first gene therapy trials in the field of hearing represents a major achievement for the teams at the Institut de l'Audition (Institut Pasteur center), and a crucial milestone in our strategic collaboration with Sensorion. The SENS-501 program, which aims to correct the deficiency of a gene responsible for congenital deafness in order to restore hearing, is based on very solid pioneering research elucidating the role of otoferlin and

the pathogenic processes elicited by otoferlin defect. Its success will pave the way for other potential therapeutic innovations, based on gene therapy in many forms of deafness and for thousands of patients."

Otoferlin is a protein expressed in the inner hair cells (IHC) present in the cochlea and is critical for hearing by ensuring the transmission of the acoustic signals to the auditory nerves. Otoferlin related hearing loss is responsible for up to 8% of all cases of congenital hearing loss, affecting around 20,000 people per year in the US and Europe1. SENS-501 previously received Orphan Drug Designation from the US Food and Drug Administration (FDA)2 and the European Medicines Agency (EMA)3 and Rare Pediatric Disease Designation from the FDA in Q4 2022.

Sensorion presented preclinical data that indicated the potential for safe and efficient clinical translation of gene therapy for otoferlin delivered by a dual AAV vector. SENS-501 administration in a DFNB9 mouse model (OTOF-KO) showed long-term de novo expression of otoferlin in inner hair cells (IHCs) and ABR (auditory brainstem response) restoration. Sensorion has also developed, in Non-Human Primates (NHPs), an optimal surgical procedure, similar to cochlear implantation, and an administration device system, in partnership with EVEON, which demonstrated an effective transduction rate of the targeted IHCs in NHPs. EVEON designs and manufactures custom medical devices for the preparation and delivery of drugs.

Denis Le Squer, Executive Director for the French non-profit foundation for hearing "Fondation Pour l'Audition",added: "The launch of the Audiogene clinical trial is a major step forward for deaf children with otoferlin defects and their parents but also brings hope to people with genetic deafness. We are very proud that our long-time support to French innovation, supported by Sensorion, and to the teams of Prof. Petit at Institut de l'Audition, center of the Institut Pasteur, and Prof. Loundon, at the Clinical Center for Research in Pediatric Audiology at AP-HP Necker hospital, translates now into a trial."

This gene therapy for patients suffering from otoferlin deficiency has been developed in the framework of RHU AUDINNOVE, a consortium composed of Sensorion with the Necker Enfants Malades Hospital, the Institut Pasteur, and the Fondation pour l'Audition. The project is partially financed by the French National Research Agency, through the "investing for the future" program (ref: ANR-18-RHUS-0007).

About Sensorion

Sensorion is a pioneering clinical-stage biotech company, which specializes in the development of novel therapies to restore, treat and prevent hearing loss disorders, a significant global unmet medical need.

Sensorion has built a unique R&D technology platform to expand its understanding of the pathophysiology and etiology of inner ear related diseases, enabling it to select the best targets and mechanisms of action for drug candidates. It has two gene therapy programs aimed at correcting hereditary monogenic forms of deafness,

developed in the framework of its broad strategic collaboration focused on the genetics of hearing with the Institut Pasteur. SENS-501 (OTOF-GT) targets deafness caused by mutations of the gene encoding for otoferlin and GJB2-GT targets hearing loss related to mutations in GJB2 gene to potentially address important hearing loss segments in adults and children. The Company is also working on the identification of biomarkers to improve diagnosis of these underserved illnesses.

Sensorion's portfolio also comprises clinical-stage small molecule programs for the treatment and prevention of hearing loss disorders. Sensorion's clinical-stage portfolio includes one Phase 2 product: SENS-401 (Arazasetron) progressing in a planned Phase 2 proof of concept clinical study of SENS-401 in Cisplatin-Induced Ototoxicity (CIO) and, with partner Cochlear Limited, in a study of SENS-401 in patients scheduled for cochlear implantation. A Phase 2 study of SENS-401 was also completed in Sudden Sensorineural Hearing Loss (SSNHL) in January 2022.
www.sensorion.com

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ISIN: **FR0012596468**
Mnemonic: **ALSEN**

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1 Rodríguez-Ballesteros M, Reynoso R, Olarte M, Villamar M, Morera C, Santarelli R, Arslan E, Medá C, Curet C, Völter C, Sainz-Quevedo M, Castorina P, Ambrosetti U, Berrettini S, Frei K, Tedín S, Smith J, Cruz Tapia M, Cavallé L, Gelvez N, Primignani P, Gómez-Rosas E, Martín M, Moreno-Pelayo MA, Tamayo M, Moreno-Barral J, Moreno F, del Castillo I.

A multicenter study on the prevalence and spectrum of mutations in the otoferlin gene (OTOF) in subjects with nonsyndromic hearing impairment and auditory neuropathy. Hum Mutat. 2008 Jun;29(6):823-31. doi: 10.1002/humu.20708. PMID: 18381613.
2 FDA Orphan Drug Designations and Approvals **https://www.accessdata.fda.gov/scripts/opdlisting/oopd/listResult.cfm**
3 EU Community Register of orphan medicinal products **https://ec.europa.eu/health/documents/community-register/html/o2698.htm**

Investor Relations
Noemie Djokovic, Investor Relations and Communications Associate
ir.contact@sensorion-pharma.com

International Media Relations
Ulysse Communication
Pierre-Louis Germain / Bruno Arabian
+33 (0)6 64 79 97 51 / +33 (0)6 87 88 47 26
plgermain@ulysse-communication.com
barabian@ulysse-communication.com

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