

Press release

## Sensorion presents new SENS-401 preclinical data at ARO MidWinter Meeting 2020

- **Poster and oral presentation highlight potential to significantly reduce hearing loss from chronic noise exposure in a rat model**
- **Second poster features age-related hearing loss with significant early decline in functional auditory measures in Wistar rats**

**Montpellier, 30 January, 2020 – Sensorion (FR0012596468 – ALSEN)** a pioneering clinical-stage biotech company which specializes in the development of novel therapies to restore, treat and prevent within the field of hearing loss disorders announces the presentation of new preclinical data on SENS-401 at the 43<sup>rd</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology (ARO 2020), held in San José (CA, US) from the 24<sup>th</sup> to the 29<sup>th</sup> of January, 2020.

Sensorion made an oral presentation entitled “SENS-401 Significantly Reduces Lasting Hearing Loss from Chronic Noise Exposure in a Rat Model” and a poster presentation, “SENS-401 Significantly Reduces ABR wave 1 Amplitude Loss after Chronic Noise Exposure in a Rat Model”. These demonstrated the beneficial effects of twice-daily, oral administration of SENS-401 for prevention of auditory deficits after chronic noise exposure.

*“These preclinical data further demonstrate the opportunity for SENS-401 to make a potential difference for patients suffering from sensorineural hearing loss (SNHL).” says Nawal Ouzren, CEO of Sensorion.* “As such, they add to the body of evidence we are building up on this treatment, and we are looking forward to final results from a Phase 2 clinical trial in sudden sensorineural hearing loss (SSNHL).”

Chronic workplace or recreational noise exposure are considered the cause of 50% of the cases of hearing loss worldwide (WHO, 2018; Daniel, 2007), and currently no effective pharmacological treatment is approved for treating noise-induced hearing loss (NIHL).

To determine the potential for protection against auditory deficits following chronic noise exposure, SENS-401 or placebo was administered orally to male Wistar rats during 14 days of daily 2 hours long sessions of exposure to 100 dB SPL noise levels (comparable to the noise levels of a motorcycle, farm tractor, jackhammer or garbage truck). SENS-401 or placebo treatments were subsequently continued for an additional 14 days after the end of noise exposure. At the end of noise-exposure, SENS-401 treatment had significantly reduced the loss of auditory brainstem response (ABR) wave 1 amplitude by 60-67% compared to placebo treatment. ABR wave 1 amplitude loss is considered a measure of “hidden hearing loss”, an auditory deficit impacting speech recognition, in particular under noisy conditions.

At the end of the experiment, SENS-401 treated animals showed significantly less overall hearing loss compared to the placebo control group: noise-exposure induced increases in hearing thresholds measured with ABR were 51-63% lower for SENS-401 treated animals compared to placebo treatment.

These results support the potential of SENS-401 in treating auditory deficits from chronic noise exposure, in addition to the benefits already demonstrated in preclinical models of sudden sensorineural hearing loss and cisplatin induced ototoxicity.

A third presentation for the poster “Natural Progression of Age-Related Hearing Loss in Male Wistar Rats”, reported the development of age-related hearing loss in male Wistar rats using serial audiometry over the course of 6 months. These experiments determined progressive, consistent age-related hearing deficits as measured by changes in auditory brainstem response (ABR) and distortion product oto-acoustic emission (DPOAE) audiometry at earlier ages than previously reported in the scientific literature. With the already well-established

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use of the Wistar rat strain in translational drug development, this supports the additional potential for their use in evaluation of drug candidates for the treatment of age-related hearing loss.

### About SENS-401

SENS-401 (Arazasetron), is a drug candidate that aims to protect and preserve inner ear tissue from damage that can cause progressive or sequelar hearing impairment. A small molecule that can be taken orally or via an injection, SENS-401 has received Orphan Drug Designation in Europe for the treatment of sudden sensorineural hearing loss, and Orphan Drug Designation from the US FDA for the prevention of platinum-induced ototoxicity in pediatric population. It has received Investigational New Drug (IND) clearance from the US Food and Drug Administration (FDA).

### About Sensorion

Sensorion is a pioneering clinical-stage biotech company, which specializes in the development of novel therapies to restore, treat and prevent within the field of hearing loss disorders. Its clinical-stage portfolio includes one Phase 2 product: SENS-401 (Arazasetron) for sudden sensorineural hearing loss (SSNHL). 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 modalities for drug candidates. The Company has also identified biomarkers to improve diagnosis and treatment of these underserved illnesses. Sensorion has launched in the second half of 2019 two preclinical gene therapy programs aiming at correcting hereditary monogenic forms of deafness including Usher Type 1 and deafness caused by a mutation of the gene encoding for Otoferlin. The Company is uniquely placed through its platforms and pipeline of potential therapeutics to make a lasting positive impact on hundreds of thousands of people with inner ear related disorders; a significant global unmet medical need.

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