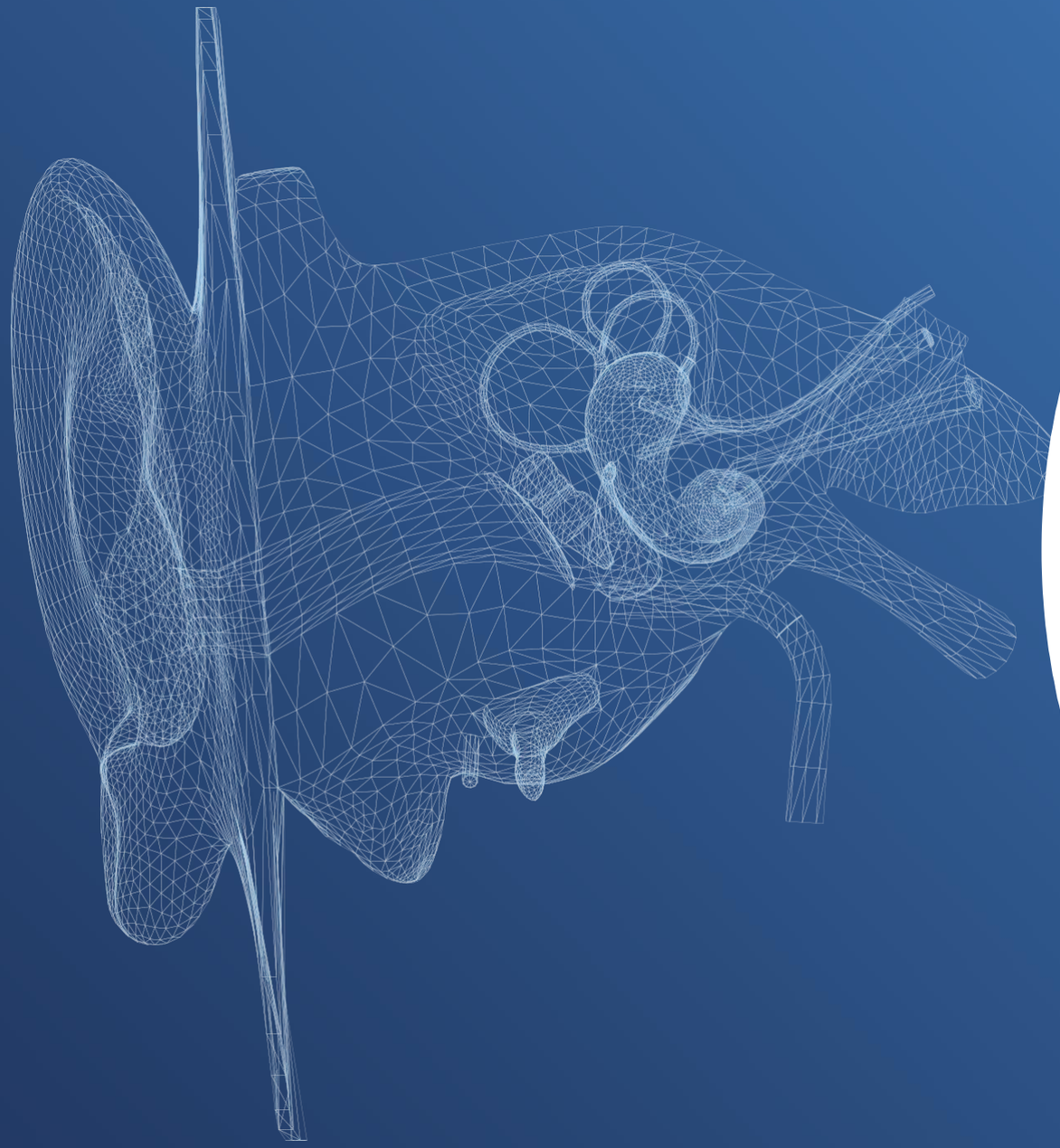

Sensorion

Unlocking the potential of advanced therapies for hearing loss

March 2024

1

SENSORION

Our vision is to help people with inner ear hearing disorders to live life with unlimited connections

Sensorion

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Sensorion: Overview

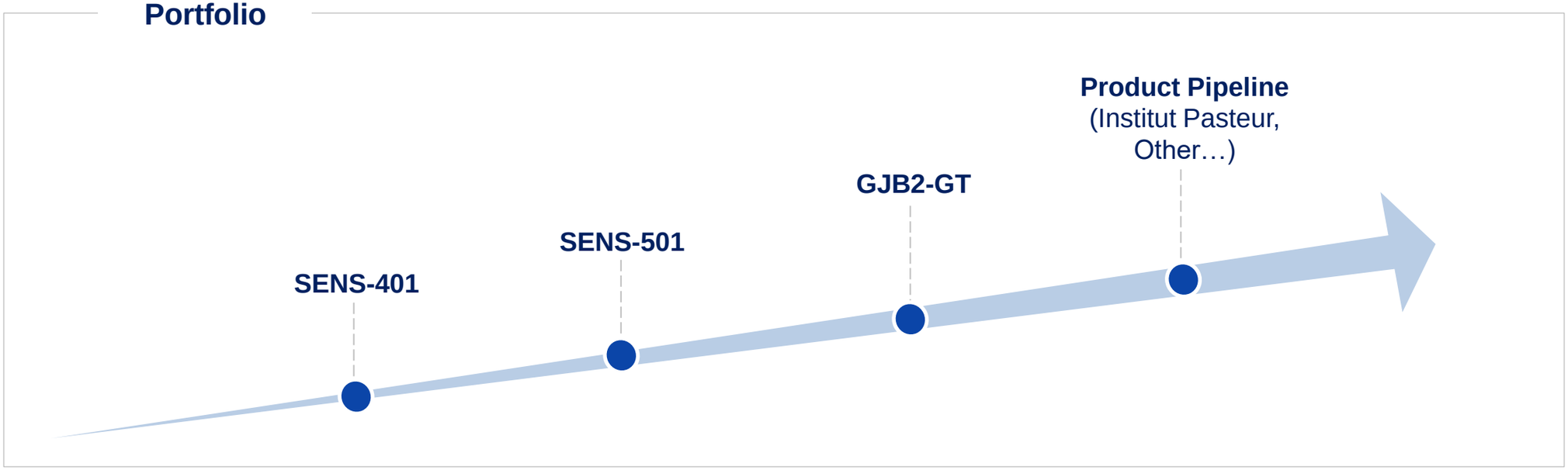
- Sensorion currently develops two **Gene Therapy** (GT) programs in the ear**,** targeting monogenic forms of deafness with **pediatric** and **adult** onset:
  - **SENS-501** (OTOF-GT) caused by mutations of the gene encoding for **otoferlin;** EU & US **ODD,** US **RPDD;**
    Ph1/2 study (Audiogene) approved in France in Jan. 2024; first patient communication in H2 2024
  - **GJB2-GT** related to mutations in ***GJB2*** **gene (candidate selected)**
  - Prospective natural history studies ongoing, strong European eco-system in place

- **Oral small molecule asset SENS-401,** for the prevention and treatment of hearing loss:
  - **Sensorion and Cochlear Ltd collaboration** (ongoing clinical Proof-of-Concept study – **Primary endpoint met**)
  - **Cisplatin-Induced Ototoxicity** (ongoing clinical Proof-of-Concept study – **Positive** preliminary safety results)
  - **Sudden Sensorineural Hearing Loss** (completed Phase 2 study – **Clinically meaningful and statistically significant effect on PTA change** (at least 10 dB) over time in a large homogeneous idiopathic population)

- **Exclusive relationship with the Institut Pasteur** in the field of hearing genetics, several GT programs initiated under strategic collaboration. **Extended partnership up to December 2028**
- Strong partnerships with key players in hearing care and devices, including **Necker Hospital (Paris, FR), Cochlear Ltd. (ASX listed)** and **Sonova (global hearing aid market leader)**
- Strong shareholder base including **leading blue-chip investors; listed on Euronext Growth.**
  - **Successful €35m capital raise** in Aug. 2023 led by Redmile Group alongside existing investors Invus and Sofinnova Partners
  - **Successful €50.5m capital raise** in Feb. 2024, with New and Existing US and European healthcare specialist top tier investors

Our Vision: A Global Franchise Establishing Leadership In The Hearing Space

Portfolio

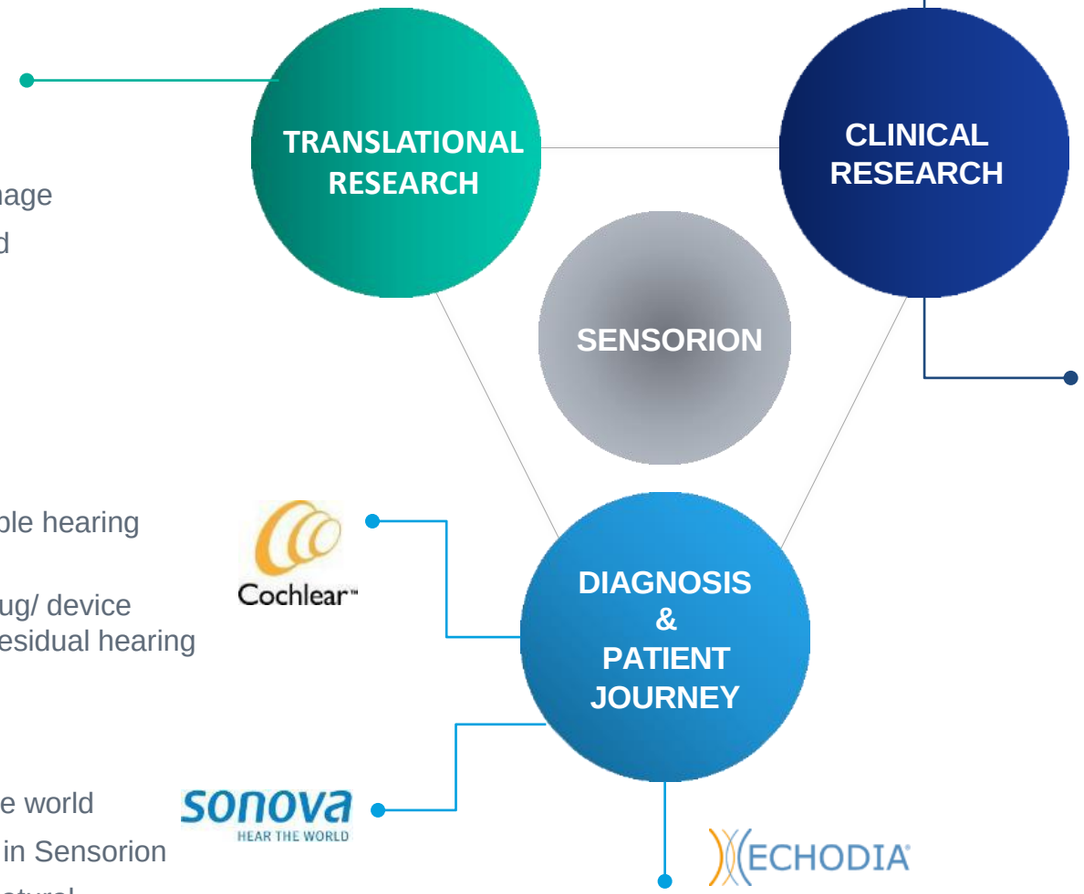


Ecosystem

- Natural History Studies
- Key Opinion Leaders
- Centers of Excellence
- Patient Groups
- Partners

- EU
- US
- ROW

Together With Best-In-Class Partners
We Can Transform the Current Standard of Care



INSTITUT PASTEUR

- Interdisciplinary approach to the mechanisms of hearing and its damage
- Research in deafness therapies and preclinical studies

Necker ENFANTS MALADES HÔPITAL UNIVERSITAIRE

- EU reference center for monogenic forms of deafness
- Natural History Study currently running for all monogenic forms of deafness; extension in EU clinical sites (OTOCONEX study)

IRBA

French Military Biomedical Research Institute

- Access to a military population at risk of noise-induced hearing loss
- Strong medical network, strict monitoring and precise, regular, well-documented explorations
- Partnership to identify biomarkers for noise-induced hearing loss

Cochlear™

- Global leader in implantable hearing solutions
- Currently developing a drug/ device combination to maintain residual hearing after CI surgery

sonova HEAR THE WORLD

- Biggest retail chains in the world
- A significant shareholder in Sensorion
- Collaboration to initiate Natural History Study in presbycusis

ECHODIA

- Functional exploration in the field of otolaryngology and neurosciences (combining biological and audiological data)

Sensorion is Well Positioned to Transform the Hearing Landscape - Institut Pasteur Partnership Feeds GT Pipeline

GENE THERAPY

Otoferlin deficiency (SENS-501)

Audiogene Ph1/2 study approved in France;
First Patient Communication in H2 2024

- Hearing restoration in DFNB9 pediatric patients aged 6 to 31 months
- Ph1/2 to evaluate safety, tolerability and efficacy of SENS-501

Connexin 26 deficiency (GJB2-GT)

Candidate selected

Considered Indications:

- Hearing restoration in DFNB1 **pediatric patients**
- Hearing restoration in **childhood onset** of hearing loss linked to *GJB2* mutations
- Hearing restoration in early onset severe **presbycusis** linked to *GJB2* mutations

SMALL MOLECULE: SENS-401

Sudden Sensorineural Hearing Loss (SSNHL)

AUDIBLE-S Ph2 Randomized and Controlled Study Completed

- Clinically and statistically significant effect on PTA (Pure Tone Audiometry) change over time in a large idiopathic population treated with oral corticosteroids
- Complete PTA recovery in 50% of treated patients

Cochlear Implantation (CI)

Ph2 Randomized and Controlled Study Ongoing
Primary Endpoint Met

- Presence of SENS-401 detected in the perilymph of 100% of sampled patients
- Clinically significant difference of 21 dB and 14 dB in the residual hearing between SENS-401 and control groups at 500 Hz and in the average of 250-500-750 Hz, 6 weeks after CI

Cisplatin-Induced Ototoxicity (CIO)

NOTOXIS Ph2 Randomized and Controlled Study Ongoing
Positive Preliminary Safety Results

- Assess prevention of the ototoxicity induced by Cisplatin in patients with neoplastic disease

Sensorion’s Portfolio of Advanced Hearing Loss Therapies

	Product	Indication	Discovery	In-vivo POC	Preclinical	Phase 1	Phase 2	Phase 3	Upcoming Milestones (estimated)
RESTORE	**SENS-501***	Otoferlin Deficiency				Phase 1/2			Communication on First Patient H2 2024
RESTORE	**GJB2-GT***	Adult Onset (presbycusis)							IND-enabling preclinical activities
RESTORE	**GJB2-GT***	Pediatric Progressive							IND-enabling preclinical activities
RESTORE	**GJB2-GT***	Congenital Onset							IND-enabling preclinical activities
PREVENT	**SENS-401**	Hearing Preservation after CI					Cochlear™		Final Data Readout Q3 2024
PREVENT	**SENS-401**	Cisplatin-Induced Ototoxicity							Preliminary Safety and Efficacy Data Sep 2024 during WCA
TREAT	**SENS-401**	SSNHL							Exploring Partnering Opportunities

3SBio has a right of first refusal with respect to licensing in Greater China of SENS-401 (except in combination with cochlear implants) and SENS-501 OTOF-GT

**Option to obtain a licence from the Institut Pasteur (pre-defined financial terms and other terms to be negotiated)*

We Have Established Internal Capabilities to Ensure Successful Execution

PRECLINICAL - SMALL MOLECULES & GT PROGRAMS

- Cell Model Platform: assays development, target & drug discovery, biomarkers
- Animal Pharmacology platform: from the POC to the dose-finding studies in disease-relevant rodent models, surgery
- Technology & Innovation platform: design and select the best drug candidate (capsid & promoter selection)

CLINICAL EXPERIENCE

- 400 subjects enrolled in Sensorion led clinical trials
- Set-up audio tests in different countries, languages
- Central reading of audiometry testing
- In-house audiology expertise of more than 20 years for the pediatric and adult populations and cochlear implants

CMC GENE THERAPY FACILITIES

- Process development: non-GMP manufacturing from small scale up to 50L in bioreactor
- Analytical development: development of product-specific analytical methods, in-house generic assays to support process development and AAV manufacturing

REGULATORY EXPERTISE

- Develop regulatory strategies to ensure expedited product development including gene therapy
- Regulatory Agency interaction (EU/US)
- Shape the treatment guidelines and standardize clinical endpoints

PATIENT ACCESS

- Working with prominent payers from the EU5
- Obtaining consultation about our early Clinical Development Program within EU and US
- Building capabilities cross-functionally

Our Team has Significant Experience in Gene Therapy Clinical Development

The team has been involved in 15+ programs from preclinical to BLA filing…

10	4	1
Preclinical	Clinical	BLA filing

… using different technologies…

15	1	1
Gene therapy (AAVs / LVs)	Cell therapy	Gene editing

… across different organs and indications…

… with multiple organizations

avexis · AUDENTES THERAPEUTICS · GENETHON CURE THROUGH INNOVATION · rocket pharma · SOLID BIOSCIENCES · celectis · ESTEVE Advancing health together · GenSight BIOLOGICS · Necker Enfants Malades · SAREPTA THERAPEUTICS · Orchard therapeutics

2

GENE THERAPY PROGRAMS

Sensorion

Sensorion's Gene Therapy Programs Target Rare Auditory Diseases

FIRST PROGRAMS RESULTING FROM THE INSTITUT PASTEUR COLLABORATION

OTOFERLIN DEFICIENCY

- Pediatric patients with mutations in OTOF suffer from severe to profound sensorineural prelingual non-syndromic hearing loss
- Otoferlin deficiency could be responsible for up to 8% of all cases of congenital hearing loss
- Prevalence ~20,000 in the USA + EU
- Incidence ~1,100 per year in USA + EU
- EU and US ODD, US RPDD

GJB2-RELATED HEARING LOSS

We have identified three forms of hearing loss associated with *GJB2* gene mutations:

- Early onset of severe presbycusis (adult population)
- Childhood onset (pediatric population)
- Congenital onset (pediatric population)
- ~100,000 patients between 30- and 69-years old thought to be affected by a monogenic form of presbycusis due to *GJB2* mutations
- Prevalence of congenital and childhood onset forms are estimated to be around 200,000 patients as around 50% of autosomal recessive non syndromic hearing loss cases are thought to be from *GJB2* mutations

Sources: Akil et al. 2019 (link), Orphanet (link), NIH (link), company estimates based on publicly available population data, Chardan 2020 report, Bryan, Garnier & Co 2019 report, Institut Pasteur, Boucher et al. 2020 (link)

DELAYED DIAGNOSIS – NOT SUSPECTED AT FIRST SIGHT

GENE THERAPY HAS A LIFE-CHANGING POTENTIAL FOR THESE AUDITORY DISEASES

SENS-501

Aiming To Develop Best-in Class And First-in Class Gene Therapy

CRITERIA	SENSORION
AAV capsid selected for high-level of target cells specificity	✓
GT product showing high level of target cells transduction	✓
Limited off-target tissue biodistribution	✓
Surgical approach developed and mastered by ENTs surgeons	✓
Natural History Study preparing execution of the clinical trial	✓
Regular engagement with regulatory agencies	✓

SENS-501

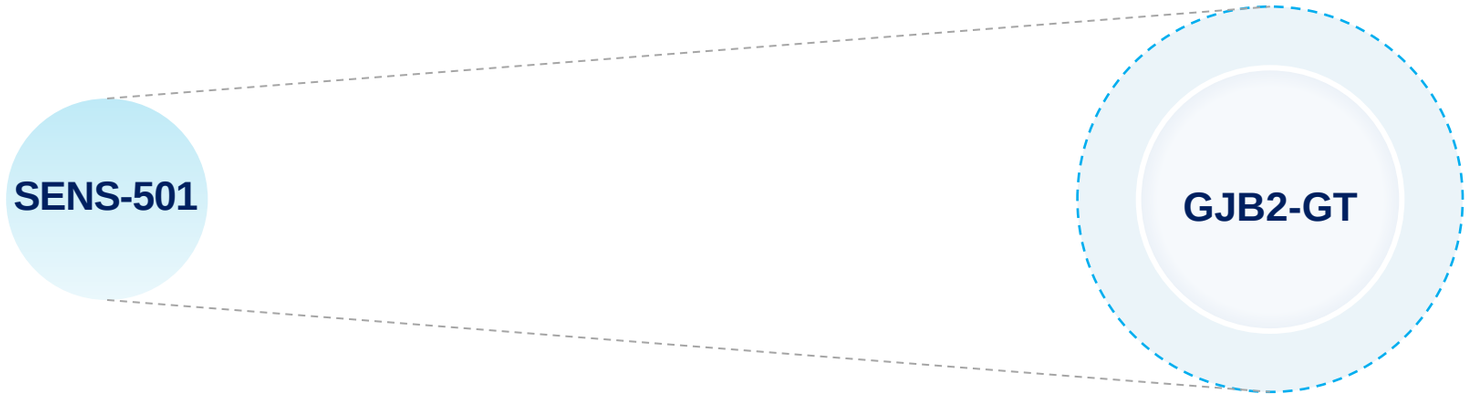
Gene Therapy Pediatric Indications Have Blockbuster Sales Potential
SENS-501 CTA Approved in France

SENS-501 (OTOF-GT) is the Perfect Pilot Program

- Well understood biology and pathology of the otoferlin deficiency
- Full functionality of the remaining chain
- High specificity for the inner hair cells (IHCs), no off-target effect expected

- SENS-501 will be the pilot program demonstrating that GT is a relevant medical approach for the inner ear
- SENS-501 will establish understanding of GT in the inner ear by the Regulators and the Payers for future GT programs
- Medical plausibility and target population have been confirmed through :
  - ✓ Orphan Drug Designation in the US and EU
  - ✓ Rare Pediatric Disease Designation with eligibilty for voucher in the US
  - ✓ Clinical Trial Application approved in France, 1st patient communication H2 2024

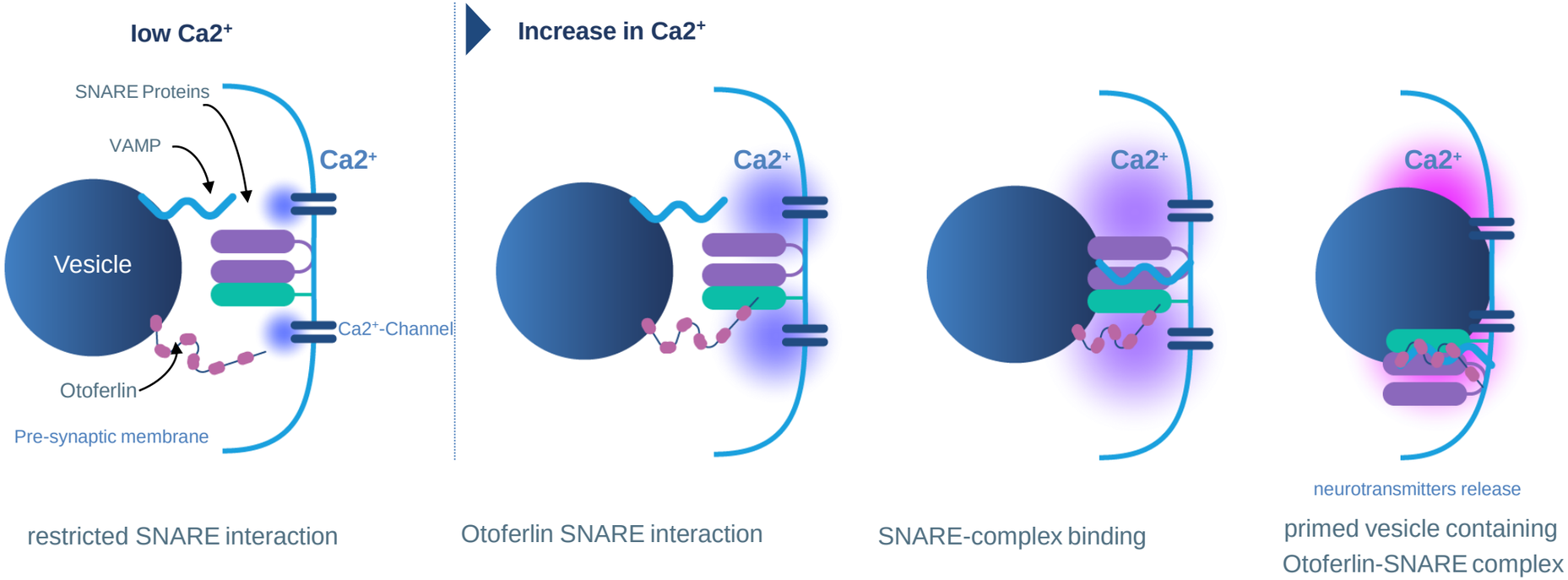
Sales Potential Illustration



Sources: Sensorion, AT Kearney market research

SENS-501

OTOF Gene Encodes Otoferlin, A Key $Ca2^+$ Sensor Protein



Model illustrating calcium regulation of otoferlin/SNARE interaction in the hair cell – Adapted from Ramakrishnan *et al.* 2014

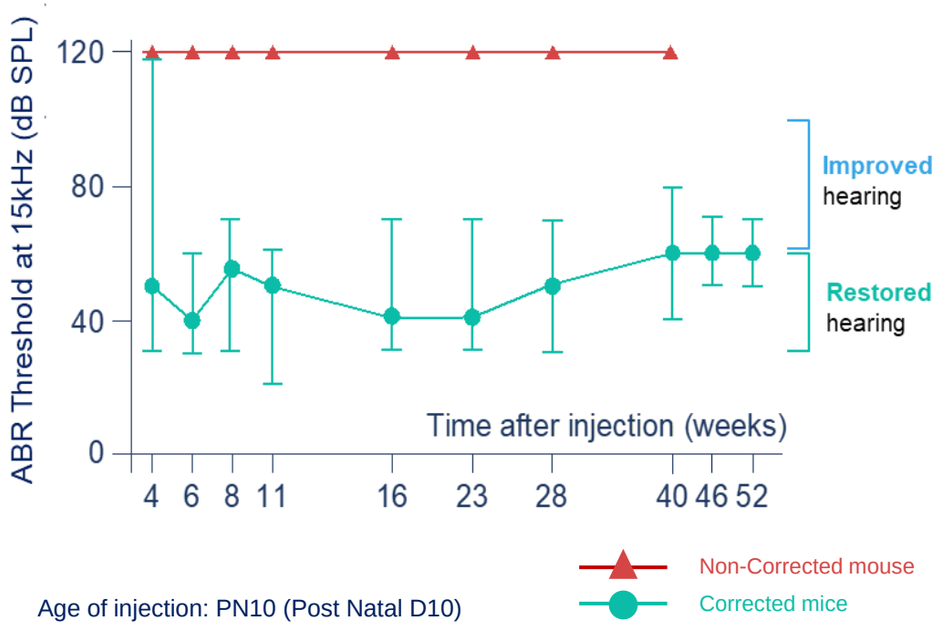
OTOF is the gene coding for the otoferlin protein, a $Ca2^+$ sensor for vesicle fusion and vesicle pool replenishment at auditory hair cell ribbon synapses

SENS-501

SENS-501 Leads to Long-term Hearing Recovery in a Translational Model of Otoferlin Deficiency

Long-Term Hearing Restoration

AAV-mOTOF injected in mice before hearing onset

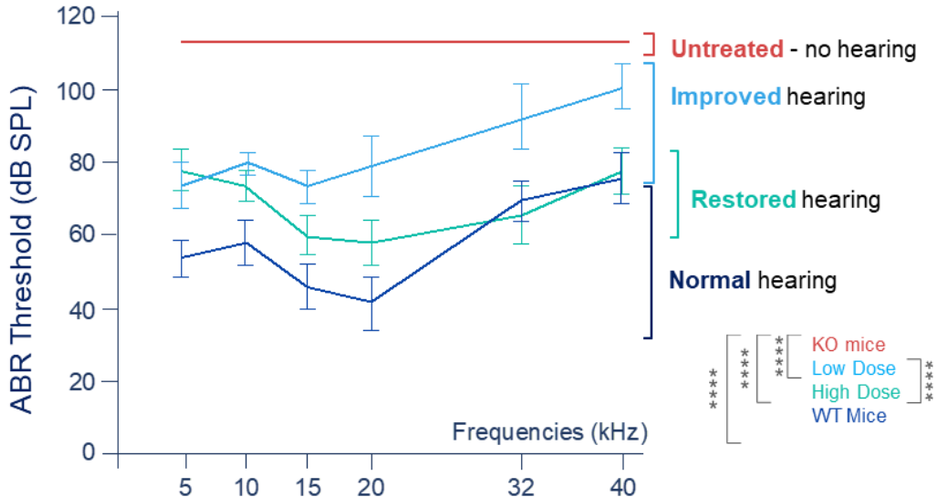


Age of injection: PN10 (Post Natal D10)

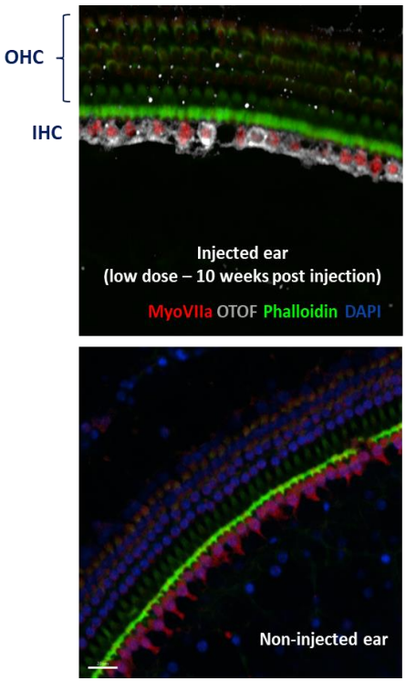
- **Durable hearing restoration** in Otof-/- mice by dual AAV-OTOF directly delivered to the inner ear up to one year post-injection

Hearing Restoration Correlates with de novo OTOF Expression

SENS-501 injected in mice after hearing onset
10 months after injection



Age of injection: PN17-25



O/IHC: Outer/Inner Hair Cells

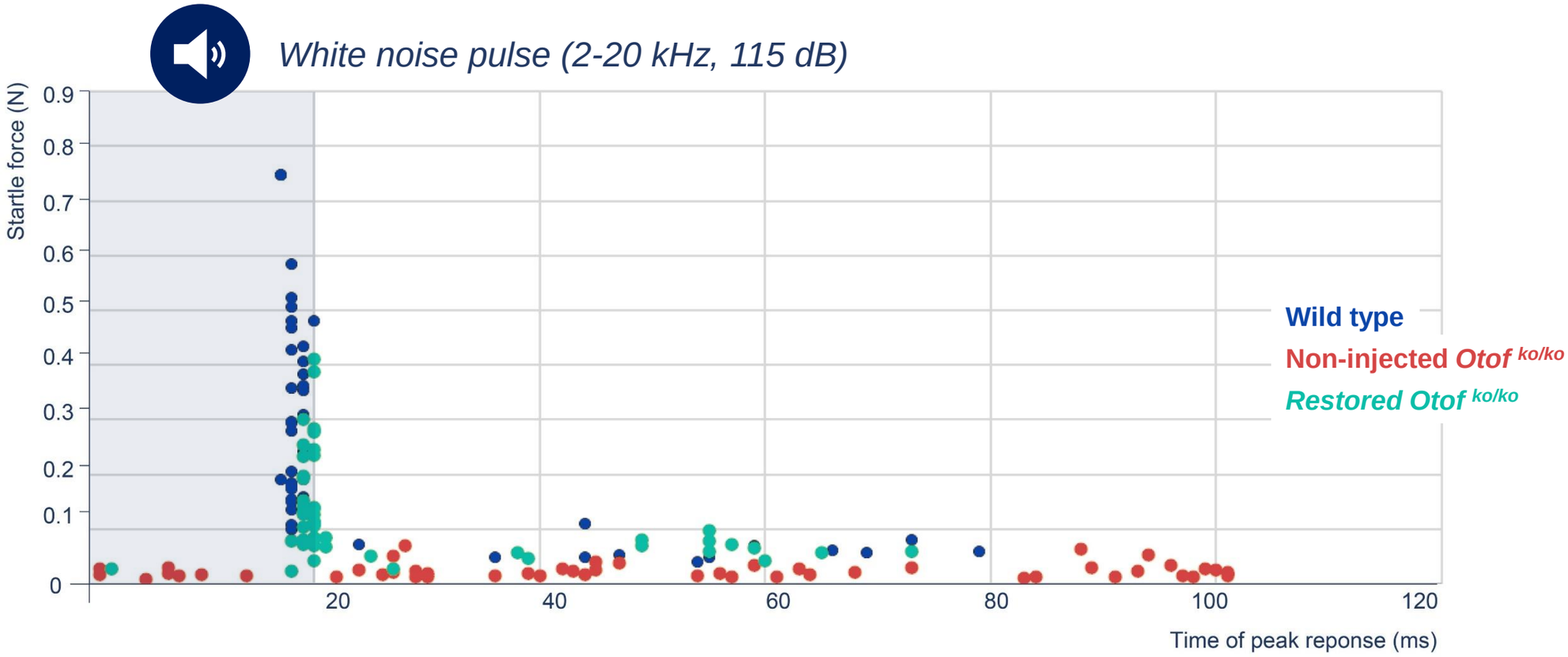
- Both doses of SENS-501 demonstrated efficacy in **improving hearing in KO mice**
- SENS-501 leads to **otoferlin expression in Inner Hair Cells**

Olivier et al. ASGCT 2023 link

SENS-501

SENS-501 Leads to Restoration of Efficient Sound Processing in Behavioural Test

Behavior Test Based on Hearing Recovery Implemented in Mouse



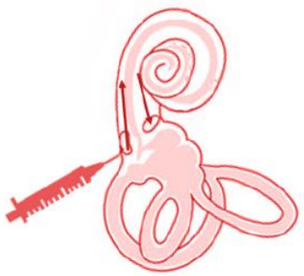
Olivier et al. ASGCT 2023 link

SENS-501

Dedicated Surgical Approach for Gene Therapy

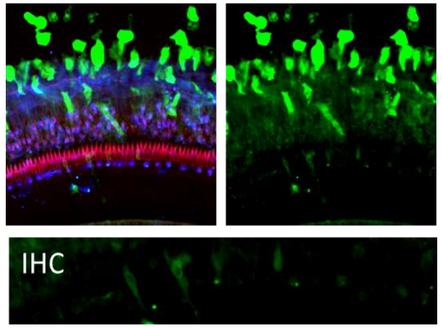
Non-Human Primates injected through the round window membrane (RWI) with or without stapedotomy (stap)

1 Fenestration

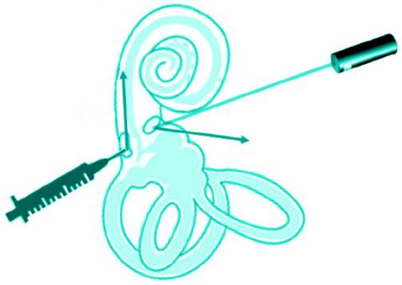


Used for cochlear implant

- Overpressure
- Limited volume
- Backflow
- Irregular transduction rate

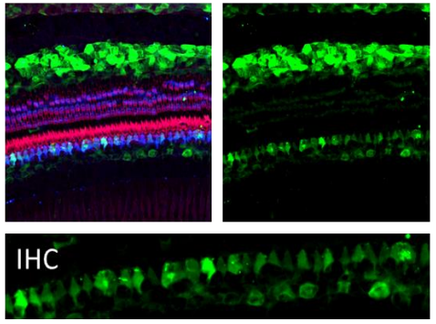


2 Fenestrations



Combining 2 common surgical technics: cochlear implant and stapedotomy

- No overpressure
- No backflow
- Homogenous and efficient transduction rate



Surgical approach

- Surgical procedure is **similar to cochlear implantation and well mastered by ENTs surgeons**
- Optimized surgery uses **stapedotomy procedure** to maximize target cells exposure along the full length of the tonotopic axis
- **Proprietary injection device developed** to inject a defined volume at a controlled flow rate

SENS-501

Phase 1/2 Audiogene Study (SENS-501) Approved in France First Patient Communication Anticipated in H2 2024

Audiogene, a Phase 1/2 clinical trial in children aged 6 to 31 months to assess safety, tolerability, and efficacy of SENS-501 following unilateral injection into the cochlea

Audiogene Study Design

Pediatric patients, aged 6 to 31 months at the time of the injection

- Targeting the first years of life to maximize chances of acquiring speech and language

Single intra-cochlear unilateral injection

Dose escalation

- Primary endpoint: safety and tolerability

Dose expansion

- Primary endpoint: ABR (Auditory Brainstem Response)

SENS-501

Otoferlin “Audinnove” Consortium Provides Privileged Access To Patients And Surgeons

Audinnove consortium received Hospital-University Research (RHU) prize:

- The consortium is eligible to receive up to €9.7m to develop a Gene Therapy program addressing otoferlin deficiency
- Audioferlin: Natural History Study: clinical evaluation and selection of patients
- Database compilation with genotypic and phenotypic characterization of children with congenital hearing loss
- Phase 1/2 Gene Therapy study (financing up to 1st patient in the clinical study)

Audinnove consortium is key to the understanding of the epidemiology and to build awareness of the emerging gene therapies

Necker-Enfants Malades Hospital

- The first dedicated pediatric hospital in the world

The Reference Center for Genetic Deafness at Necker coordinates the French and European genetic deafness networks

Audinnove is financed by the French State, via the National Research Agency through the “Investing for the future” program (ref: ANR-18-RHUS-0007)

AUDINNOVE CONSORTIUM MEMBERS

Sensorion

INSTITUT PASTEUR

Necker ENFANTS MALADES HÔPITAL UNIVERSITAIRE

FONDATION POUR L'AUDITION À L'ÉCOUTE DE LA VIE

OTOCONEX: Natural History Study running across Europe will support identification of DFNB9 patients for Audiogene.

SENS-501

SENS-501 (OTOF) Gene Therapy Program Status – Progressing

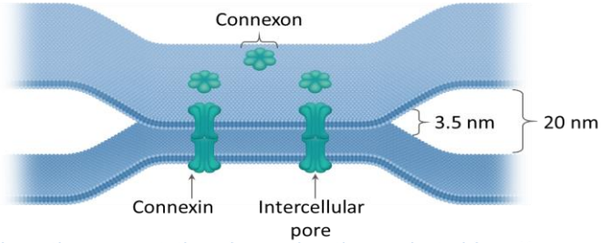
- Preclinical package completed ✓
- Injection device system development completed ✓
- GMP Drug product successfully manufactured ✓
- CTA Approval in France ✓
- Submission European Natural History Study OTOCONEX ✓
- First Patient Communication H2 2024 →

GJB2-GT

Connexin 26: a Gap-junction Protein Encoded by *GJB2* Gene and Responsible for Tissue Homeostasis

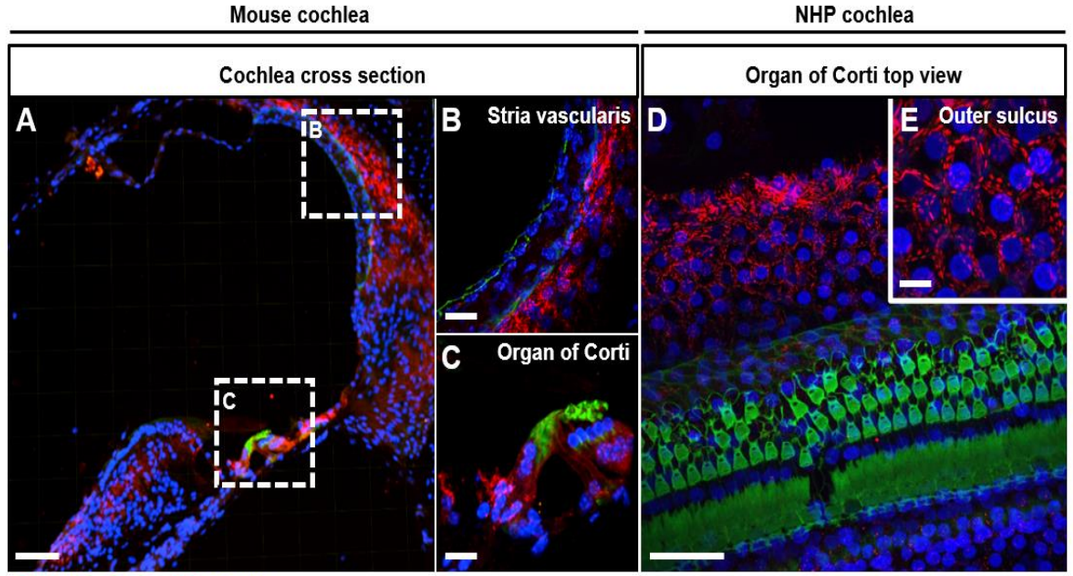
Mutations in the *GJB2* Lead to Deafness

- *GJB2* is the gene encoding for the Connexin 26 protein; one of 20 known connexins
- Cx26 and Cx30 proteins are the dominating connexins in the cochela; heteromeric or heterotypic hexamers forming Gap Junctions
- Gap Junctions are key for the intercellular exchange of molecules (miRNA, glucose, ions, etc.) hence responsible for tissue homeostasis
- More than 100 recessive mutations origin Cx26 truncation / deletion leading to non-syndromic hearing loss and deafness, most are addressable via gene replacement
- Severity of hearing loss correlates with degree of loss of GJB2 function



Schematic representation of a gap junction – adapted from Kemperman, Hoefsloot and Cremers J R Soc Med 2002;95; 171-177

GJB2 Expression in the Cochlea



- Supporting cells of the organ of Corti
- Fibrocytes of the spiral limbus and the lateral wall
- Intermediate and basal cells of the stria vascularis
- Not expressed in hair cells

GJB2-GT

Lead Candidate Was Selected to Answer Specific Developement Criteria

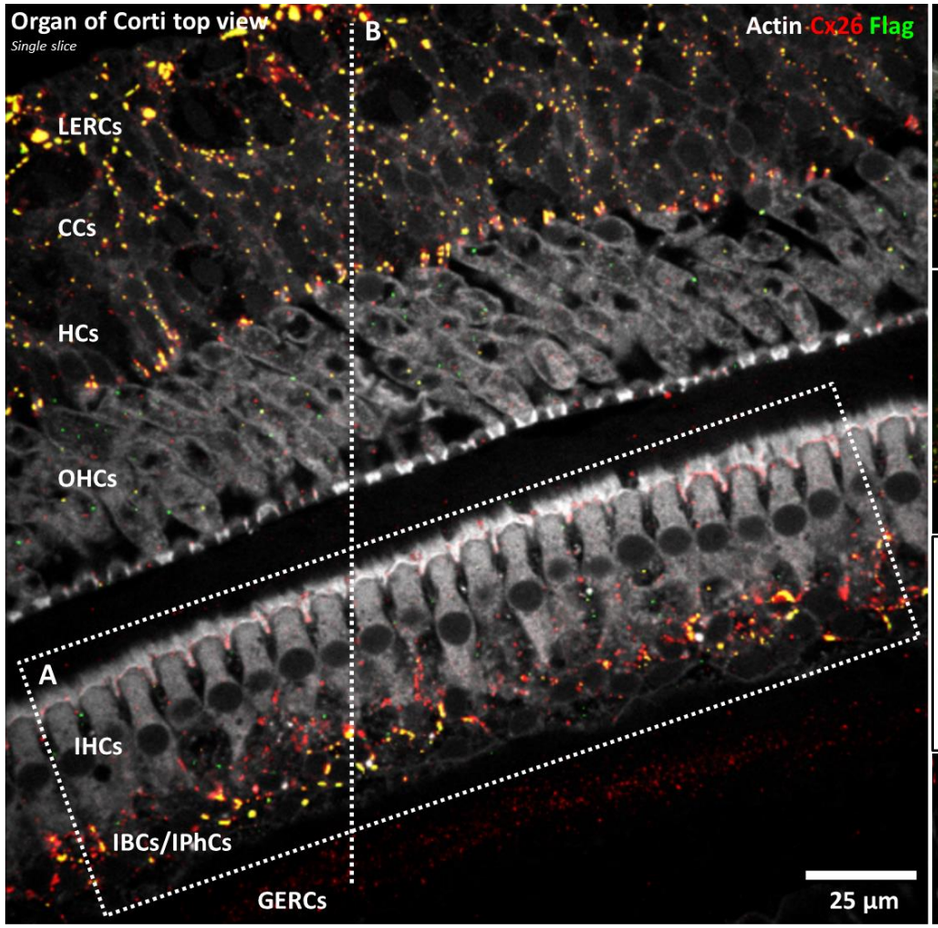
CRITERIA	LEAD CANDIDATE
Natural and synthetic AAV capsid libraries screening for broad coverage of target cells	✓
Expression cassette design for high-level of target cells transduction, correct cellular localization, active gap-junctions	✓
Avoiding off-target expression (i.e. hair cells): promoter and regulatory sequences design	✓
Limited off-target tissue biodistribution	✓
Surgical approach developed and mastered by ENT surgeons	✓

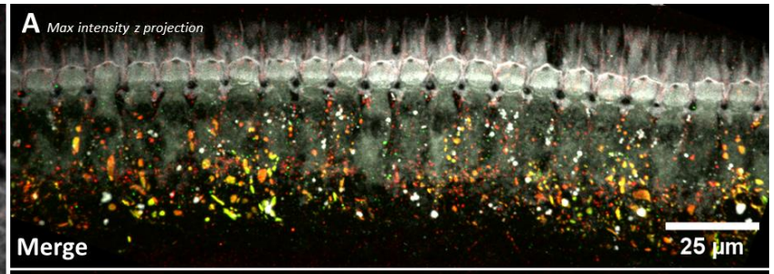
Our Lead Candidate Was Designed to Ensure Broad Coverage of Relevant Cochlear Cells While Detargeting Hair Cells

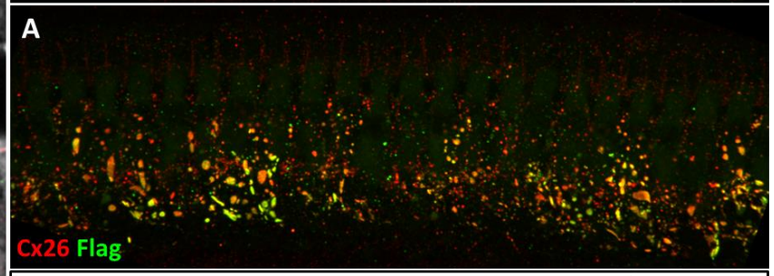
GJB2-GT

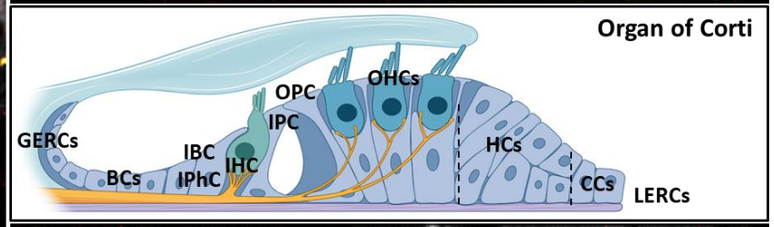
Lead Candidate Can Deliver Cx26 in the Appropriate Target Cells

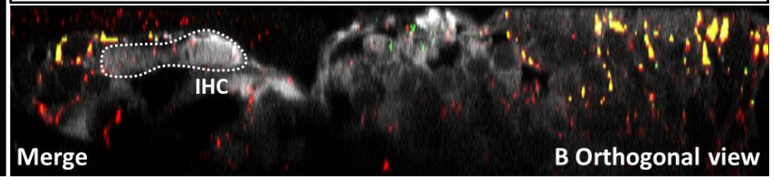
Correct Delivery of Cx26 Using Lead Candidate Flag in Non-Human Primate Cochlea











Cell Types	
Claudius Cells	✓
Deiters Cells	✓
Great Epithelial Ridge Cells	✓
Hensen Cells	✓
Inner Border Cells	✓
Inner Hair Cells	−
Inner Phalangeal Cells	✓
Pilar Cells	✓
Lateral Epithelial Ridge Cells	✓
Outer Hair Cells	−
Fibrocytes	✓
Stria Vasularis	✓

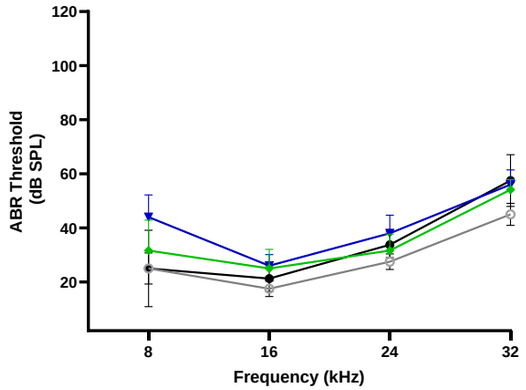
- No expression in Hair Cells confirmed
- No morphological defects observed 3 and 9 weeks after intracochlear administration

GJB2-GT

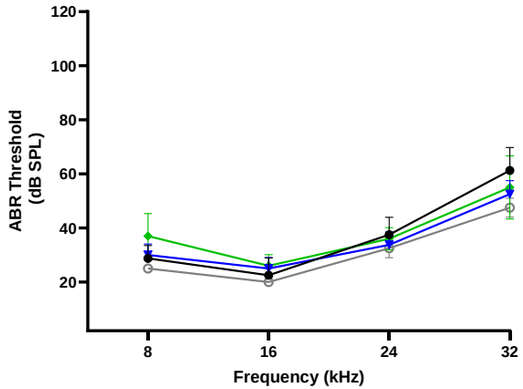
Lead Candidate Demonstrates Adequate Safety and Biodistribution Profile - Including Long-term Local Tolerability in Mice and NHP

ABR Thresholds in WT Mice Following Lead Candidate Injection

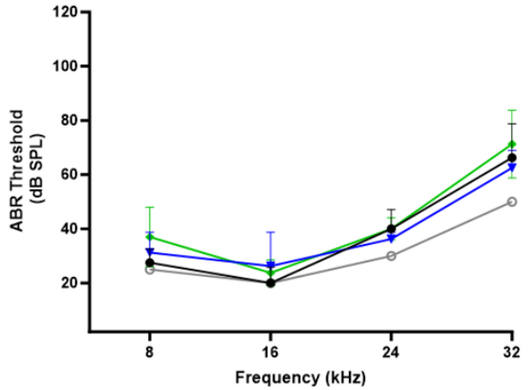
15 days after injection

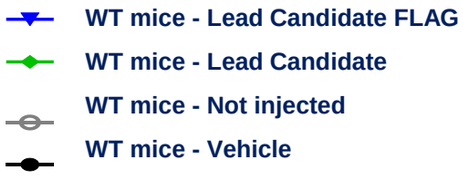


3 months after injection



6 months after injection





- No impact on ABR up to 6 months following Lead Candidate injection

3-Month Exploratory Toxicity and Biodistribution in Non-Human Primate

- Lead Candidate is well tolerated and did not induce any macroscopic/organ weight changes or local/systemic microscopic findings
- Normal cochlear histology
- No lab and clinical findings
- Biodistribution: the vast majority of the vector remains in the injected ear, no dissemination observed in gonads, main organs, DRG

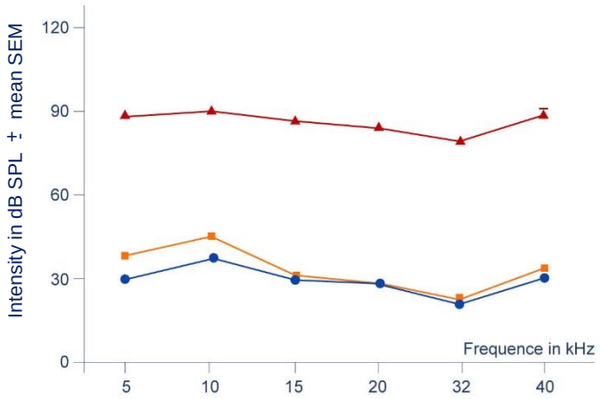
GJB2-GT

Lead Candidate Prevents Hearing Loss in Relevant Mouse Model

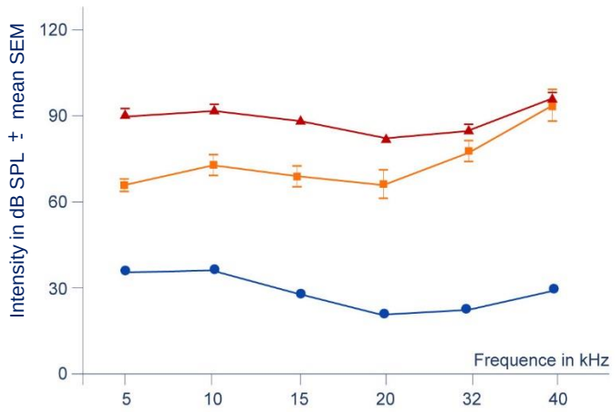
Proof Of Concept In Progressive Mouse Model

Conditional knock-out mouse model leading to 2 phenotypes

ABR threshold - 1 month after birth

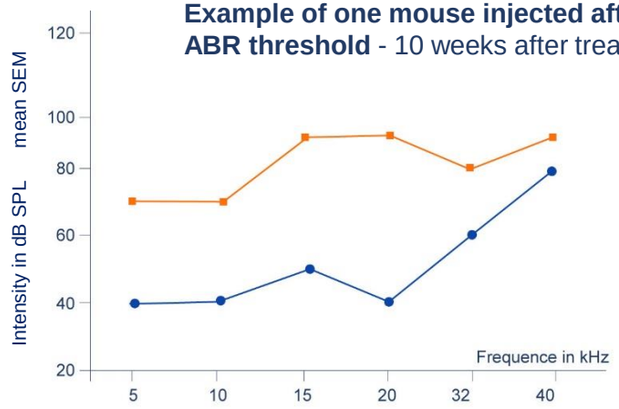


ABR threshold - 6 months after birth



Control mice Congenital-like Profound *Cx26* ↓↓↓ Progressive*Cx26* ↓

Example of one mouse injected after hearing onset
ABR threshold - 10 weeks after treatment



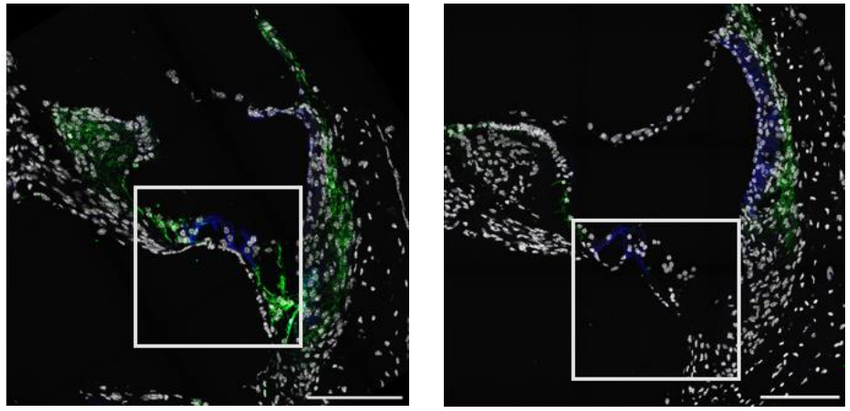
Non injected ear

Lead candidate injected ear

Hearing Loss Prevention Correlates With Connexin 26 Expression

Example of one mouse injected after hearing onset
Connexin 26 expression in the cochlea
- 10 weeks after treatment

Lead candidate injected ear Non injected ear



Left: Green staining demonstrates efficient Cx26 re-expression in target cells, which are otherwise depleted (right) in Cx26 in the GJB2 deficient model

GJB2-GT

GJB2 Gene Therapy Program Next Steps

Submission of European Natural History Study OTOCONEX

Submission of Natural History Study in collaboration with Sonova

Candidate selection Q2 2023

Preclinical IND enabling studies

Clinical Trial Applications H1 2025

3

SMALL MOLECULE PROGRAMS

Sensorion

SENS-401: Multiple Indications to Treat And Prevent Hearing Loss

	Product	Indication	Discovery	*In vivo* POC	Preclinical	Phase 1	Phase 2	Phase 3
PREVENT	SENS-401	Hearing preservation after cochlear implantation						
PREVENT	SENS-401	Cisplatin Induced Ototoxicity						
TREAT	SENS-401	Sudden Sensorineural Hearing Loss*						

Cochlear™

**"Patriot" Consortium (IRBA, Sensorion, Echodia, Institut Pasteur) awarded up to €10.8m non dilutive financing by French government, staged over the duration of the project. Sensorion will receive up to €5.6m to further develop SENS-401 in SSNHL French army*

SENS-401 - a Portfolio With Potential Blockbuster Value

For treatment

And prevention

Blockbuster Potential

SENS-401 SSNHL clinical data and insight **derisk** further development of SENS-401 in other indications

SSNHL

Sudden Sensorineural Hearing Loss (SSNHL) is a Severe Disease Affecting more than 200,000 Patients Per Year

WHAT IS SSNHL?

The sudden onset of a significant hearing loss due to dysfunction of the cells of the cochlea and central auditory structures.

Hearing loss develops over less than 72 hrs, hearing sensitivity is reduced by at least 30 dB (1,000 fold) in the affected ear(s).

>70% of cases are idiopathic, known causes include noise/head trauma, ischemia, infection.

>50% of patients suffer from permanent disabling hearing loss, mostly those with initial severe/profound hearing loss.

Complications significantly impact quality of life due to:

- Difficulties in communicating, social isolation, cognitive decline
- Accompanying tinnitus

Incidence: 27-35 per 100,000 (218,000 patients in 2017 in G7 countries)[1]

[1] Company/ estimates based on publicly available data (in the US, Japan, Germany, France, the UK, Italy and Spain)

SSNHL

SENS-401 SSNHL Program: AUDIBLE-S Phase 2 Design

A RANDOMIZED, MULTICENTER, DOUBLE-BLIND, PLACEBO-CONTROLLED TRIAL

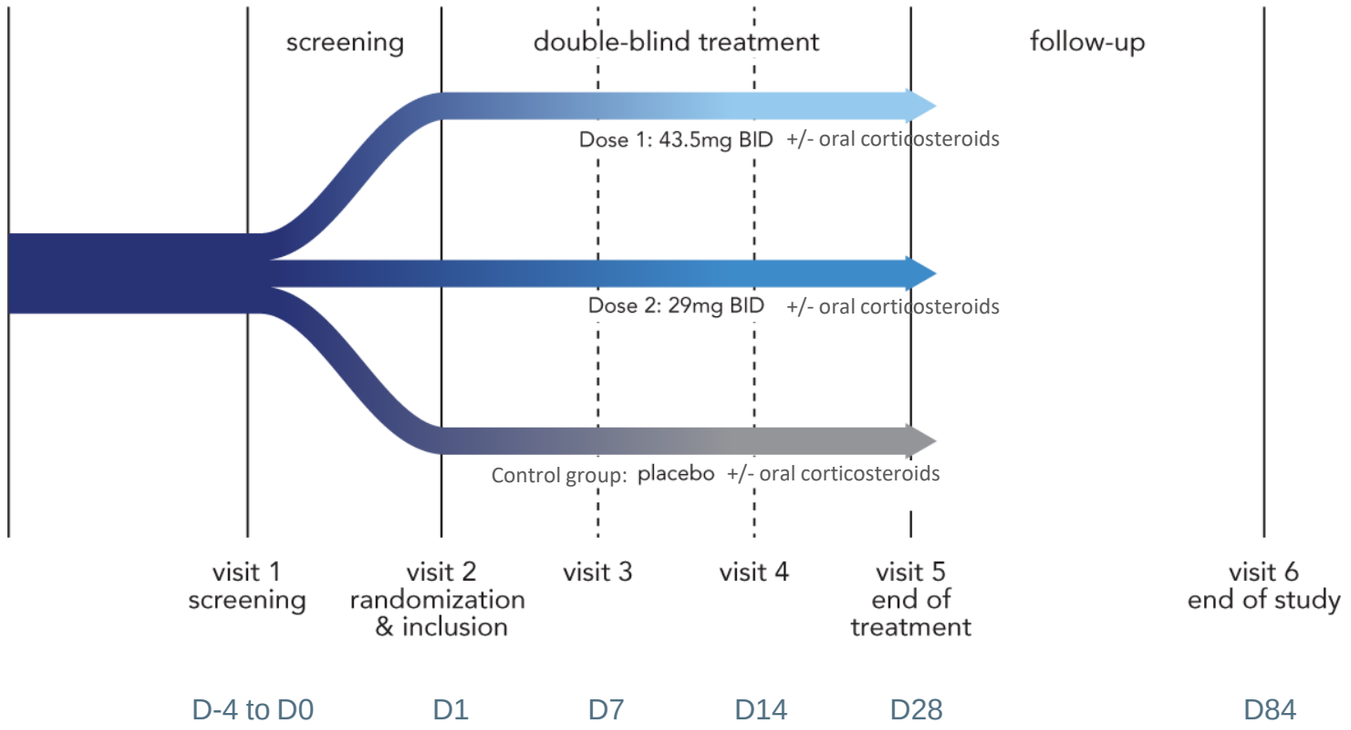
50 clinical sites globally

1 Primary endpoint
Audiometry
15 dB improvement
vs. Placebo

115 patients enrolled

Timing

Q1 2019 center openings	June 20 & Jan 21 Positive DSMB Review	Q1 2022 Final results

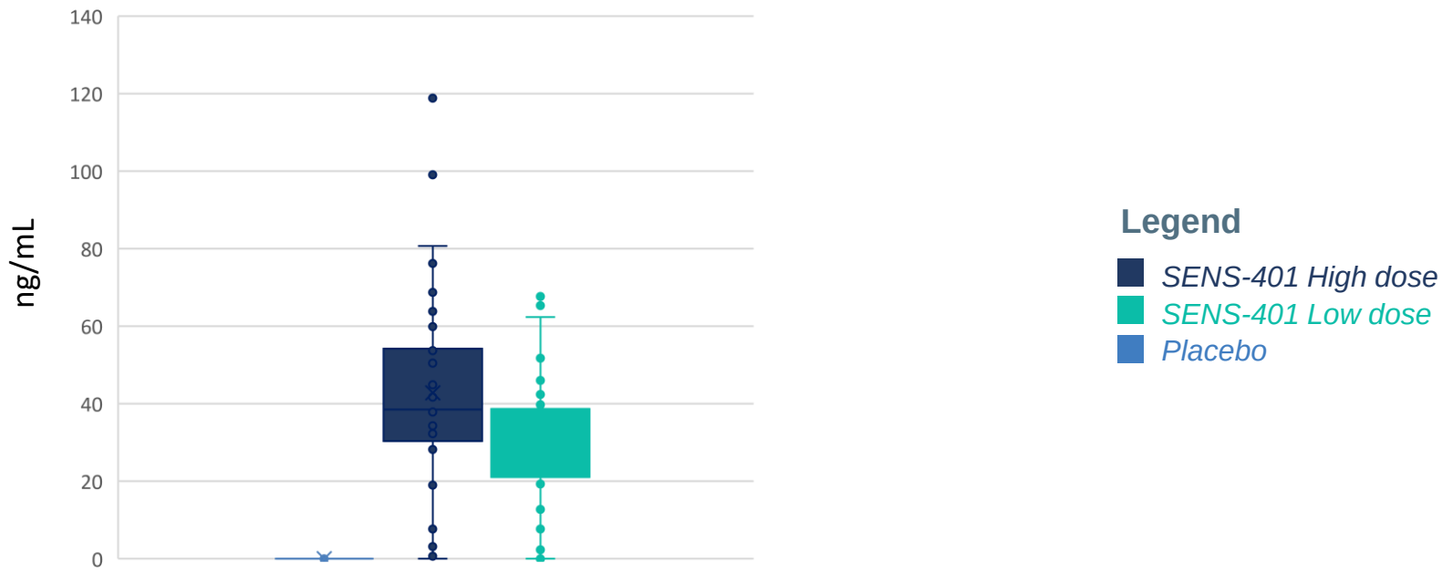


Primary endpoint definition:
"…change in pure tone audiometry (PTA); average of the hearing threshold of 3 contiguous most affected hearing frequencies in decibels in the affected ear from baseline to the end of treatment visit (Visit 5/D28±3)"

SSNHL

SENS-401 Plasmatic Exposure

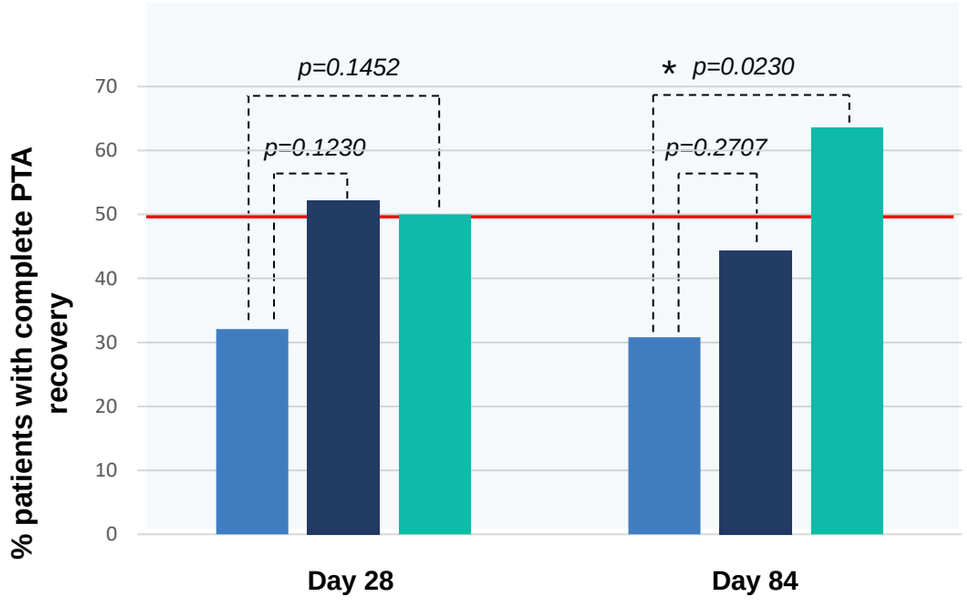
Plasmatic Concentration (Pre-dose at Day 14 and Day 28)



SSNHL

SENS-401 Induces Complete PTA Recovery In 50% Of Patients

Complete PTA Recovery



Complete PTA recovery (n/n total)	Placebo	High Dose	Low Dose
Day 28	9/28	12/23	13/26
Day 84	8/26	8/18	14/22

Legend

- *SENS-401 High dose*
- *SENS-401 Low dose*
- *Placebo*

- **Complete hearing recovery** is defined as patients with hearing loss at baseline who will **revert to PTA < 20 dB,** considered as *"normal"* hearing.

SSNHL

SENS-401 SSNHL Phase 2 Results Summary

Seeking Partners For Late-Stage Development And Commercialization

AUDIBLE-S SECONDARY ENDPOINT RESULTS

- **Complete PTA recovery is achieved in 50% of the SENS-401 treated patients**
- SENS-401 shows a **clinically meaningful and statistically significant effect on PTA change** (at least 10 dB) over time in a **large homogeneous idiopathic population of patients treated with corticosteroids**
- SENS-401 induces a **significative PTA change of at least 19 dB at day 28 and up to 25 dB at Day 84 allowing a reduction of the hearing loss degree from profound to mild, in large profound hearing loss sub-group**
- A better response was observed in both treatment groups with a **continuous improvement between Day 28 and Day 84**
- **The change in PTA translates into functional improvement evidenced with speech audiometry tests**
- Safe and well tolerated in 115-patient SSNHL study; although primary endpoint not met data supports and informs further clinical development
- **Responder rate is always better in the treated group** compared to Placebo and difference with Placebo increases over time

CI

SENS-401 To Preserve Residual Hearing After Cochlear Implantation

COMBINATION OF COCHLEAR IMPLANT WITH SENS-401 TO PREVENT CELL-DEATH POST COCHLEAR IMPLANT PROCEDURE

HEALTHY AGEING

Growing understanding of the link between healthy hearing and healthy ageing

Source: Cochlear® 2018 investor day (link)

KEY FIGURES

36,450
Implants sold by Cochlear® globally in 2021[1]
(representing ~60% of global market share)

$1.5bn
Cochlear implant market in 2020[2]

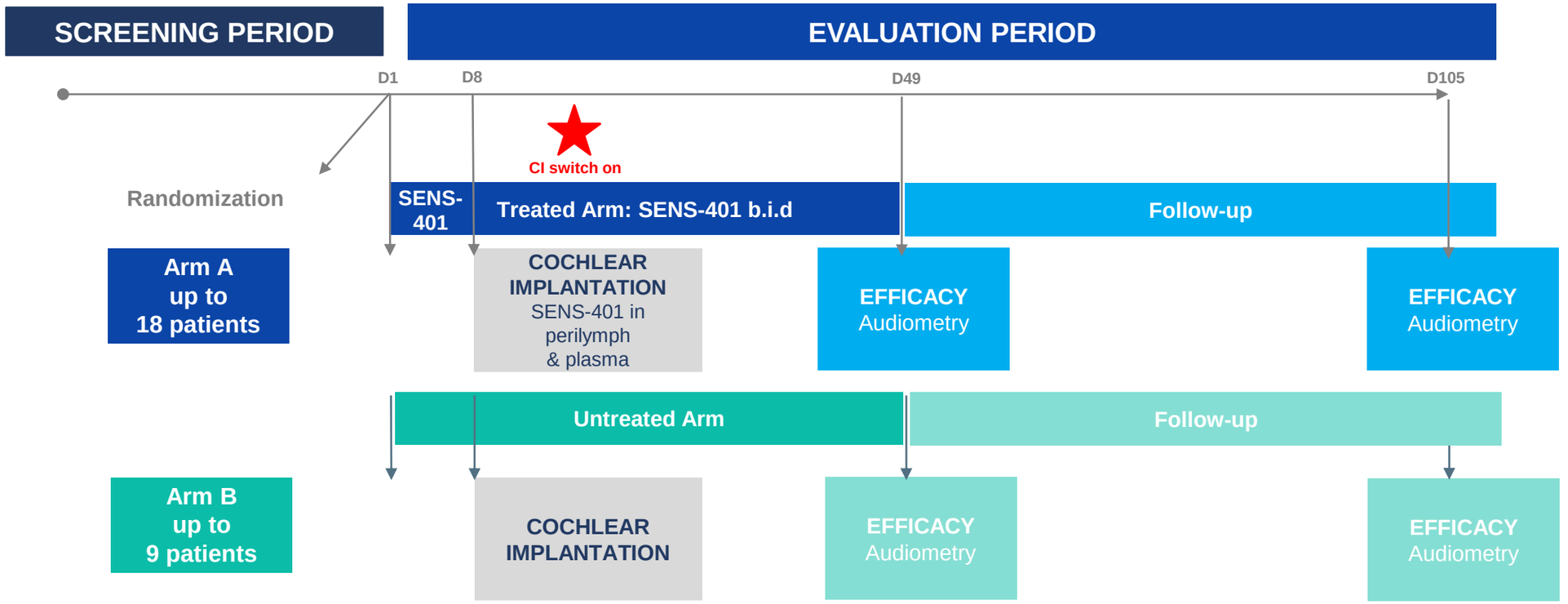
80%
Market penetration in children in developed markets[1]
and 3% in adults[1]

[1]Cochlear® FY21 Result Presentation (link)
[2]Market estimates (link)

CI

SENS-401 CI Study Design
Primary Endpoint Met

A Phase 2a, Multicenter, Randomized, Controlled, Open-label Study



PRIMARY OBJECTIVE:
To evaluate the presence of SENS-401 in the perilymph

SECONDARY OUTCOME:
Change of hearing threshold from baseline to the end of the study in the implanted ear at several frequencies

CI

Primary Endpoint of the Phase 2a Clinical Study for Residual Hearing Preservation Has Been Met

Perilymph Concentrations Data

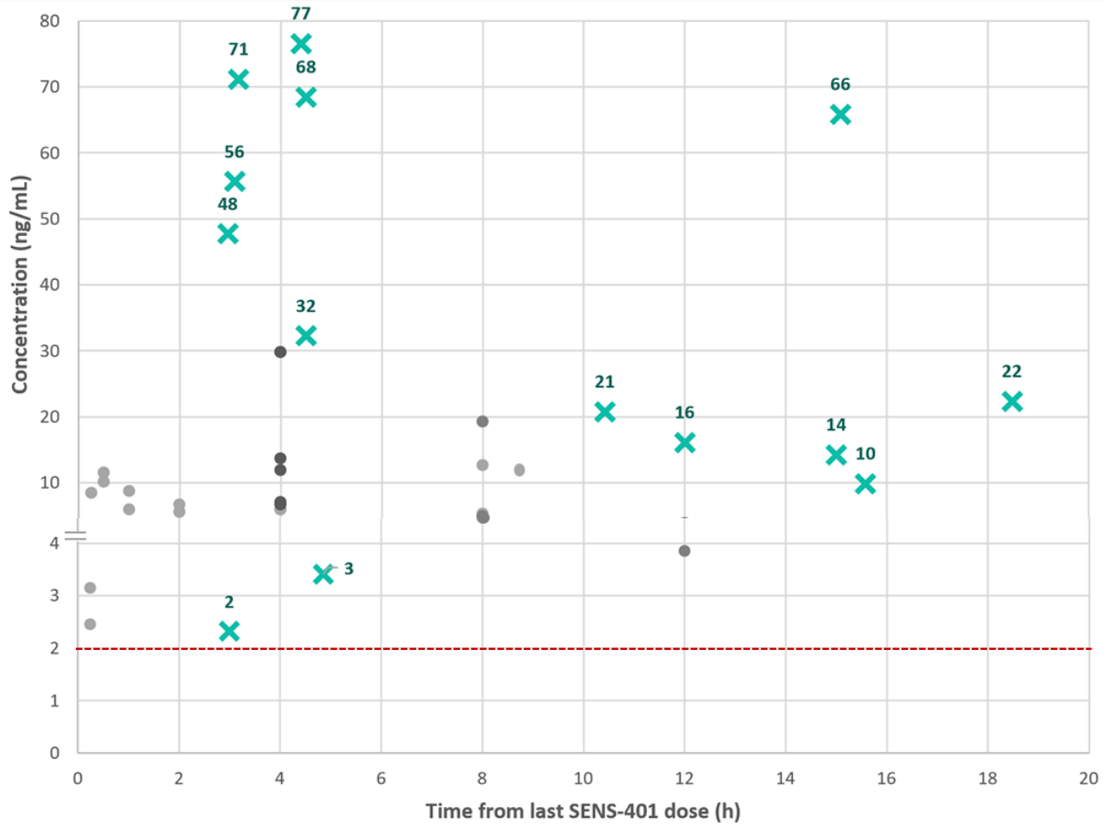
Rat

Guinea Pig

Cat

Human

Minimal perilymph concentration in animals



- **Presence of SENS-401 in the perilymph is confirmed in 100% of the patients sampled following cochlear implantation.**
- **These results confirm that SENS-401 administered orally crosses the labyrinth barrier.**

CI

Residual Low Frequency Hearing Benefits for Cochlear Implant Users

Initial shift*
(2-4 weeks postoperative)
between surgery and initial activation of the device

- **Attributed to perioperative factors**

Second shift*
(3-6 months postoperative)

- **Attributed to intracochlear fibrosis, excitotoxic changes from electrical and acoustic stimulation**

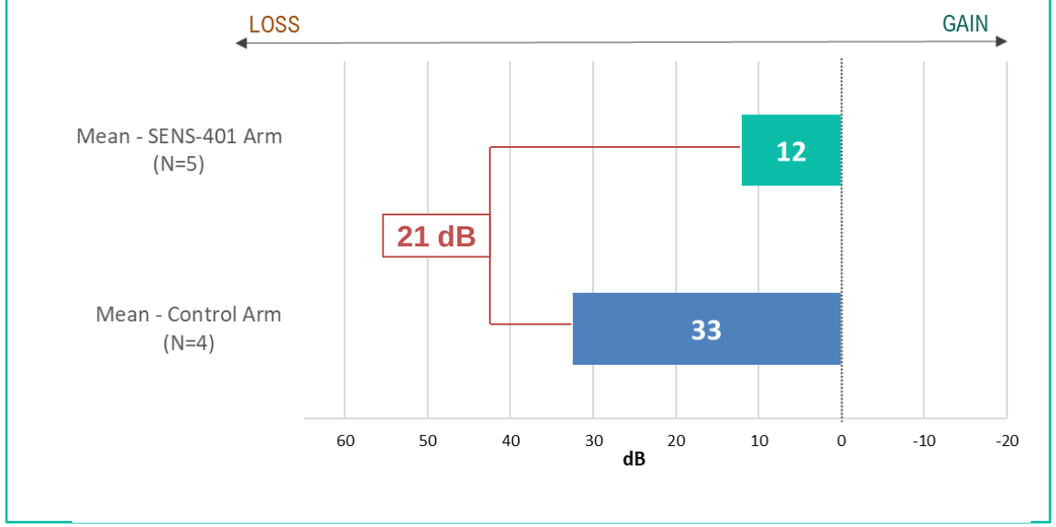
Postoperative hearing preservation defined as:
unaided air-conduction **thresholds < 85 dB HL** at 125, 250, and 500 Hz

**Jensen et al., Hearing Preservation After Cochlear Implantation, 2021*

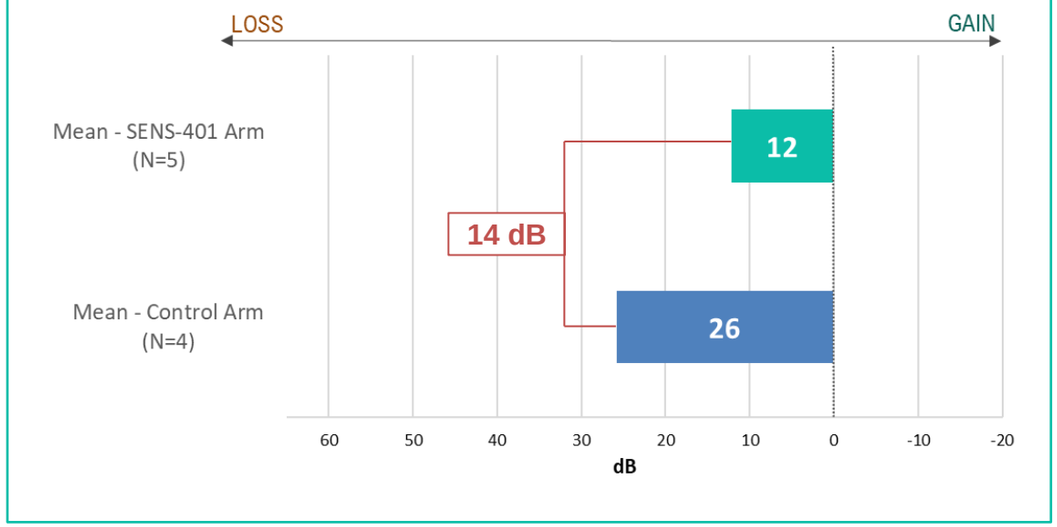
CI

SENS-401 Preserves Early Loss of Residual Hearing - As Shown in all First Five Patients Treated

Mean Change from Baseline At 500 Hz, in the Implanted Ear, 6 Weeks After Implantation



Mean 3 Frequency PTA Change (250, 500 And 750 Hz), in the Implanted Ear, from Baseline to 6 Weeks After Implantation



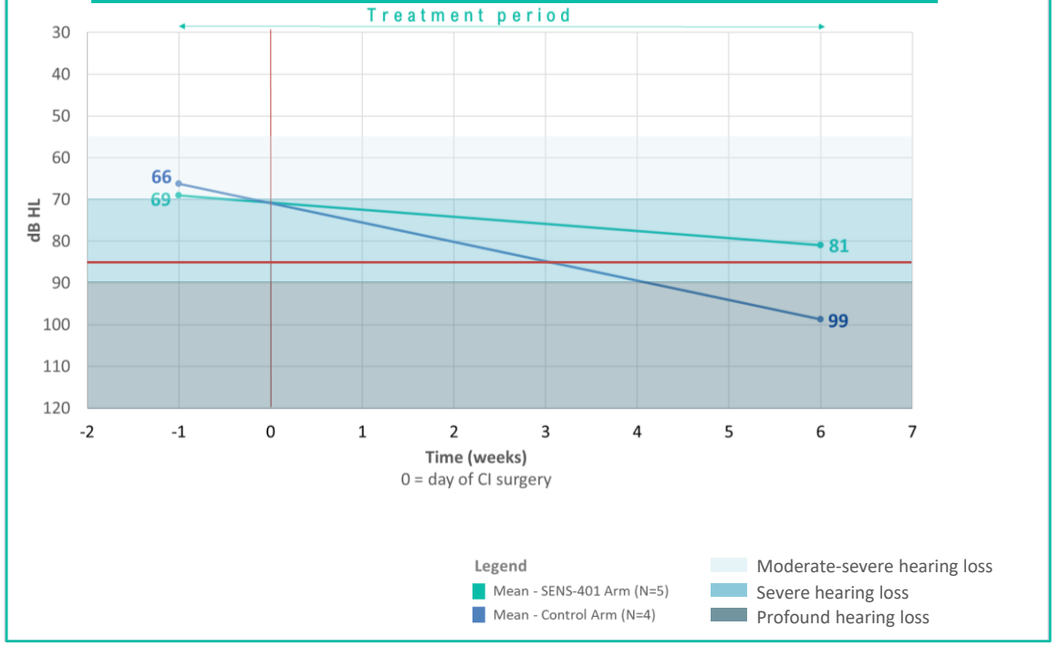
PTA = Pure Tone Average

- **A clinically significant difference of 21 dB and 14 dB in the early loss of residual hearing between SENS-401 and control groups is observed at 500 Hz and in the average of 3 frequencies respectively, 6 weeks after cochlear implantation**

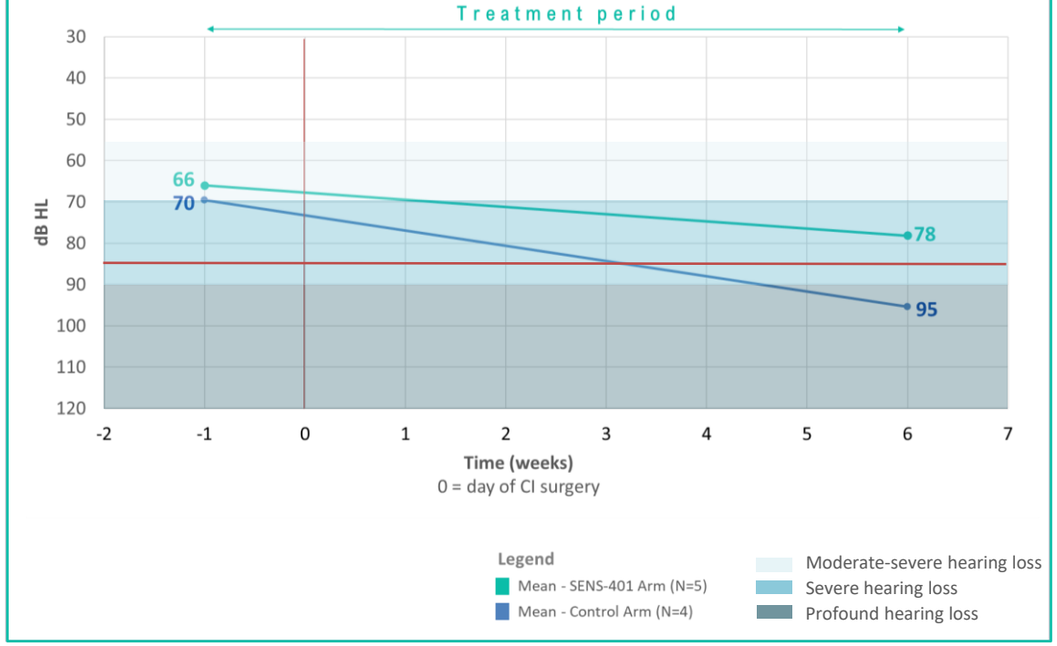
CI

SENS-401 Also Preserves Post-Operative Hearing - As Measured at the End of the Treatment Period

Change Of 500 Hz Hearing Threshold in the Implanted Ear, from Baseline to 6 Weeks After Implantation



Mean 3-frequency PTA Change (250, 500 And 750 Hz) in the Implanted Ear, From Baseline to 6 Weeks After Implantation



Postoperative hearing preservation defined as unaided air-conduction thresholds <85 dB HL (adaptation of Jensen et al., 2021)

- **The SENS- 401 treated group remains above the defined threshold of postoperative hearing preservation**
- **Shift in hearing loss degree: patients not treated with SENS-401 are progressing from moderate-severe hearing loss to profound hearing loss**

CI

SENS-401 CI Conclusion

SENS-401 can cross the labyrinthine barrier to target cochlear hair cells in all patients sampled, confirming primary endpoint is met.

Six weeks post-cochlear implantation, the **residual hearing loss** whether assessed at 500 Hz or across an average of 3 consecutive frequencies **exhibited a clinically significant, favorable trend for the treated group (12 dB), in comparison to the untreated group (33 dB), resulting in a difference of clinical significance of 21 dB.**

This supports the assumption that **SENS-401, present in the perilymph fluid, reaches concentrations that are pharmacologically active**.

SENS-401 taken for 7 weeks confirms it has a **good safety profile**.

These encouraging trends necessitate further validation across the full study participant group.

SENS- 401 has the potential to modify the outcome of CI while preserving residual hearing by improving speech perception in quiet and noise, music perception, spatial localization and maintaining more natural sound quality.

These results support the SSNHL phase 2 data and further development of SENS-401.

CIO

Cisplatin Administration for Chemotherapies Damages the Inner Ear and Leads to Hearing Loss, Tinnitus and Dizziness

WHAT IS CIO?

Hearing loss caused by cisplatin administration as chemotherapeutic treatment.
Risk factors include young age as well as individual and cumulative cisplatin doses.

CIO leads to permanent inner ear problems in 50-60% of adult cases and in 90% of pediatric cases.

These complications significantly impact patients' quality of life due to:

- Hearing loss, tinnitus and dizziness impacting daily life activities
- Problems in language acquisition and learning for pediatric patients
- Difficulties in communicating, social isolation, cognitive decline

Potential treatments must not interfere with cisplatin efficacy.

Incidence of cisplatin treated patients: 500,000 patients in 2025 in G7 countries[1]

[1] *Company/ estimates based on publicly available data (in the US, Japan, Germany, France, the UK, Italy and Spain)*

CIO

SENS-401 Phase 2a Proof-of-Concept Study NOTOXIS Positive Preliminary Safety Data

A Phase 2a, Multicenter, Randomized, Controlled, Open-label Study to Evaluate the Efficacy of SENS-401 to Prevent the Ototoxicity Induced by Cisplatin in Adult Subjects with a Neoplastic Disease

SCREENING PERIOD
between -28 and -2 days

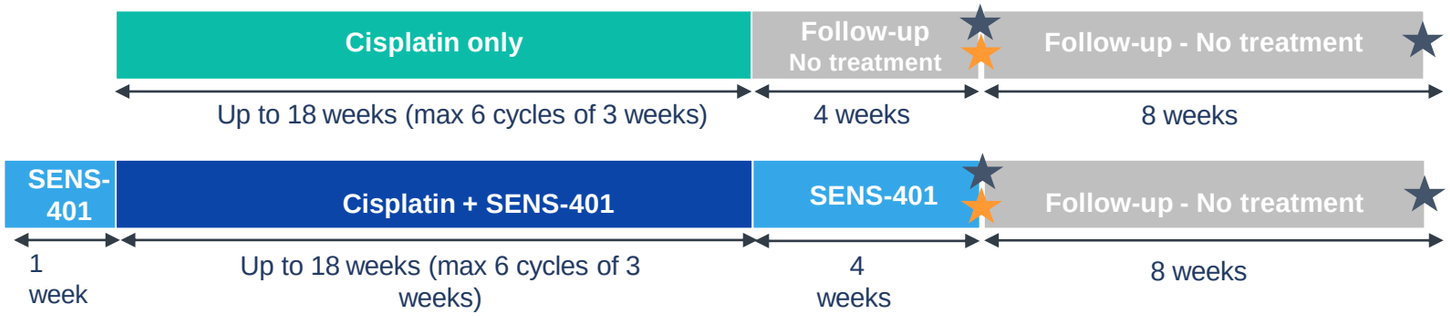
Subjects suffering from a neoplastic disease for which the treatment protocol includes a chemotherapy with cisplatin and having a higher risk of ototoxicity induced by the cisplatin treatment

RANDOMIZATION

Arm A - Up to 29 subjects

Arm B - Up to 29 subjects

STUDY DURATION (max 31 weeks)



Objectives:

Efficacy
- Rate of ototoxicity
- High Frequency PTA
- Speech in Noise and quiet
- THI questionnaire

Safety
- AEs & SAEs incidence

Key Takeaways from Preliminary Study Data

- SENS-401 has a **favorable safety profile** when administered continuously for up to **11 weeks** in adult patients undergoing cisplatin-based chemotherapy
- Recruitment is progressing well, with over a third of the required study population enrolled (and eleven clinical centers open to date)
- Sensorion will provide preliminary safety and efficacy data of its POC Phase 2a clinical trial of SENS-401 CIO during the **World Congress of Audiology**, being held on September 19-22, 2024

CI & CIO

SENS-401 Program Key Milestones, Data Readouts in 2024

SENS-401 with cochlear implants (CI)
- Positive Preliminary Results Reported

SENS-401 with cochlear implants (CI)
- Primary Endpoint Readout H1 2024

SENS-401 CIO NOTOXIS
- Preliminary Results S2 2023

SENS-401 CIO NOTOXIS
- Preliminary Safety and Efficacy Data Sep. 2024 during WCA

SENS-401 with cochlear implants (CI) – Full Data Readout Q3 2024

Sensorion Newsflow [estimated timelines]

- August 2023 – Successful €35m capital raise ✓
- H2 2023 – SENS-401 CIO: NOTOXIS preliminary results ✓
- January 2024: SENS-501: CTA approval in France ✓
- February 2024 – Successful €50.5m capital raise ✓
- H1 2024 – SENS-401 in combination with cochlear implantation: Primary endpoint readout ✓
- September 2024 – SENS-401 CIO: NOTOXIS preliminary safety and efficacy data during WCA
- H2 2024 – SENS-501: Communication on First Patient
- Q3 2024 – SENS-401 in combination with cochlear implantation: Final Data Readout
- H1 2025 – SENS-501: Enrollment of the first two cohorts completed
- H1 2025 – GJB2-GT: Clinical Trial Applications

THANK YOU

E: contact@sensorion-pharma.com

Sensorion