CILcare

MAKING HEARING A PRIORITY

Translating pre-clinical findings into successful clinical trials

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ARO 2021

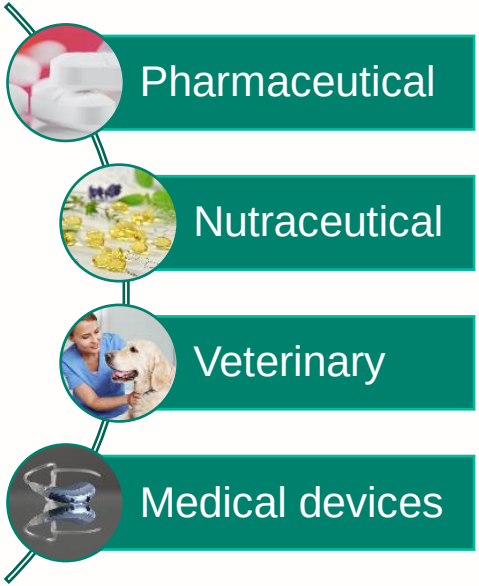
CILcare is the leading external innovation R&D partner in hearing disorders

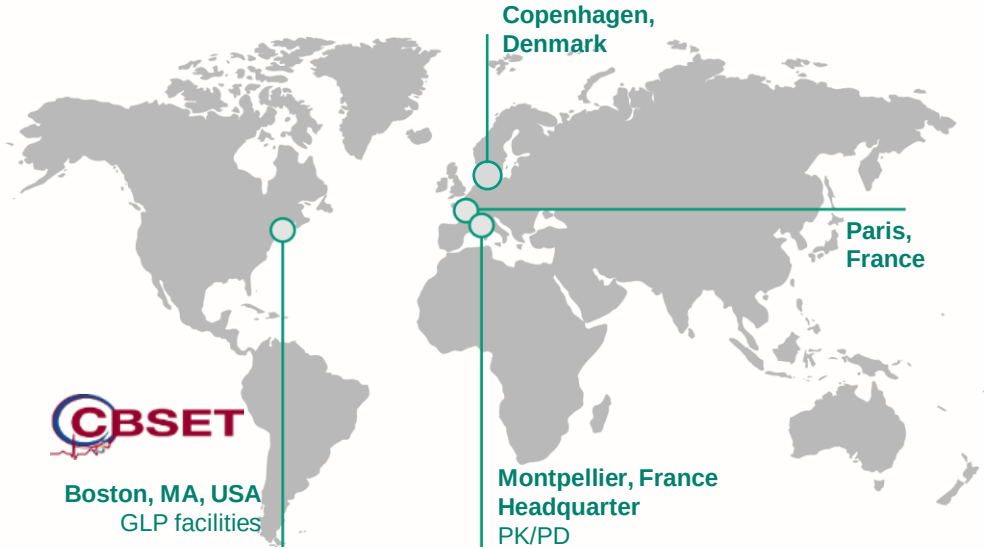
Established in France, US & Denmark, CILcare operates worldwide since its inception in 2014

+120 Studies

+60 Sponsors

2 Labs





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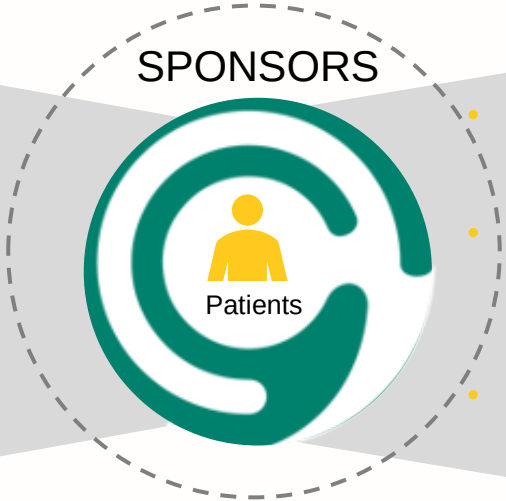
A CATALYST of the hearing disorders area!

- Working with **internationally** recognized **KOL** from industry & academia
- Continuously building **strategic industrial** partnerships
- Speaking in **international scientific** conferences



- Strongly involved in **patient associations**
- Collaborating with a **global network** of preclinical & clinical CRO partners & consultants
- Frequently **publishing** in international **peer review journals**

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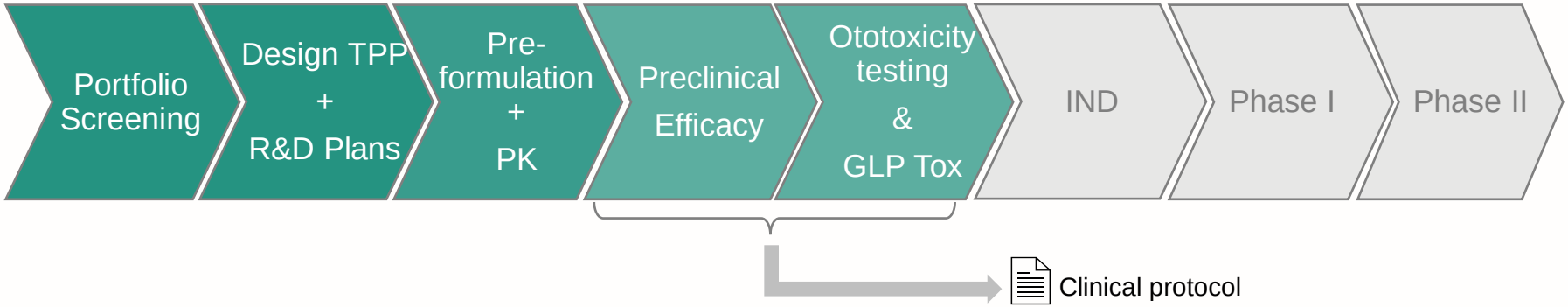
Think clinical development

Indication ● route of administration ● endpoints



In preclinical studies, select the best:

MODEL

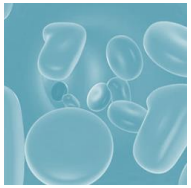
DRUG REGIMEN

READ-OUTS

Models for auditory research & development

SCREENING PHASE

OTIC CELL LINE



COCHLEAR EXPLANTS

ZEBRAFISH

PK | EFFICACY | TOLERANCE | GLP-OTOTOXICITY

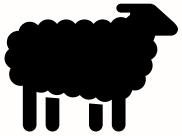
Mice

Rats

Guinea pigs

Chinchillas

Mini pigs



Sheep

RODENTS & LARGE SPECIES

Select your model to target your clinical indication

PRESBYCUSIS	TINNITUS	HEARING LOSS	OTOTOXICITY	GENETIC DEAFNESS	OTITIS MEDIA
• Age-related hearing loss	• Salicylate-induced tinnitus • Noise-induced tinnitus	• Noise-induced hearing loss	• Drug-induced hearing loss	• Gene therapy	• Otitis media
MICE SAMP8	**RATS** Long Evans	**RATS** Wistar **GUINEA PIGS** Hartley	**RATS** Wistar **MICE** CBA	**RODENTS** **MINI PIGS** **SHEEP**	**CHINCHILLAS** Bastard F1N1

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Design efficacy study mimicking clinical situation

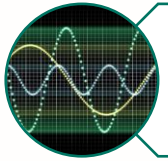
Differentiate POC studies from efficacy studies in terms of:

Formulation

For slow / Sustained release

Administration regimen

Preventive versus curative / regenerative treatment



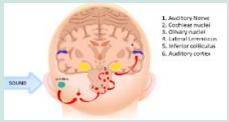
Read-outs

Translational read-outs

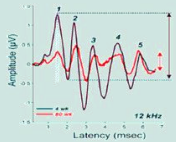
Select translational and complementary measures

Non invasive & recognized read-outs

ABR
(Auditory Brainstem Responses)

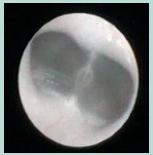


WAVE I ANALYSIS



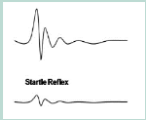
DPOAE
(Distorsion Product OtoAcoustic Emissions)

OTOSCOPY

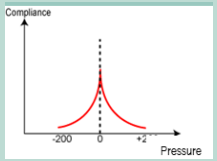


CLINICAL SIGNS

BEHAVIORAL MEASURES
GPIAS
(Gap-Prepulse Inhibition of the Acoustic Startle reflex)



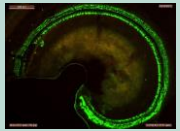
TYMPANOMETRY



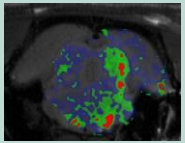
Complementary measurements

GROSS ASSESSMENT OF THE MIDDLE EAR

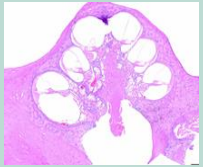
COCHLEOGRAM



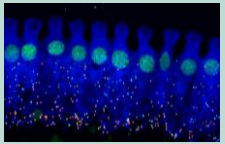
MEMRI



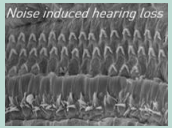
HISTOLOGY



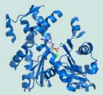
RIBBON SYNAPSES COUNT



SEM
(Scanning Electron Microscopy)

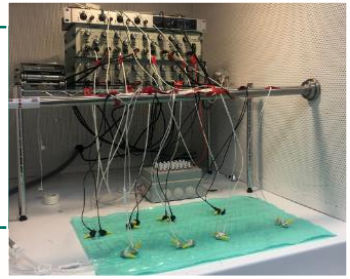


GENE & PROTEIN ARRAYS
Biochemical biomarkers



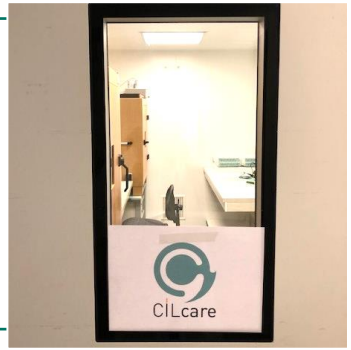
Working on robust and reproducible models

High throughput measures

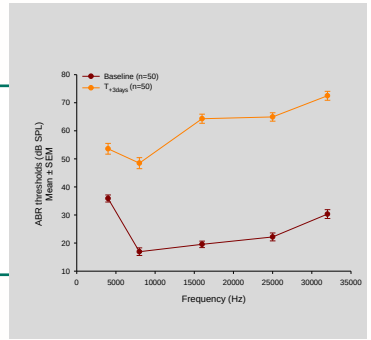


Expert team

Experiments conducted in a high-quality acoustic environment



Reproducible data over time



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Thank you for your attention !

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