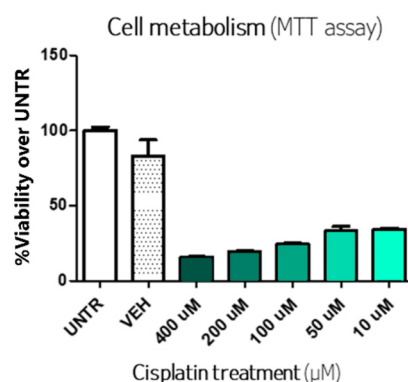


Ready to assess the auditory safety of your drug ?

A comprehensive range of **screening assays** from discovery to **GLP ototoxicity studies**

IN VITRO SCREENING ASSAY ON OTIC CELL LINE

- Use of HEI-OC1 cell line (Kalinec *et al*, 2003), a reference in auditory research (250+ studies)
- Express several molecular markers characteristic of organ of Corti sensory cells
- High throughput, reliable, and rapid test



Compound's potential ototoxicity can be assessed in comparison to cisplatin or any other reference ototoxic drug

EX VIVO ASSAY IN COCHLEAR EXPLANTS



- Cochlear explants derived from neonatal rodents
- Wide range of read-outs: *hair cells and synapse count, transduction efficiency, SGN count, fibrosis visualization, etc.*

IN VIVO ASSAY IN ZEBRAFISH



- Morphological and functional similarities to mammalian hair cells of the inner ear
- Valuable model for studying hair cell toxicity but also development, structure, genetics and behavior

Unmatched expertise in preclinical otic studies

- Strong experience in assessing drug candidates targeting the inner ear, as well as cyclodextrins, excipients, aminoglycosides, etc.
- Dose range finding studies for GLP ototoxicity
- Unique expertise in inner-ear PK/PD, electrophysiology, electroacoustic, histopathology:
 - ABR (Auditory Brainstem Responses)¹, DPOAE (Distortion Product Oto-Acoustic Emissions), Otoscopy, Gross assessment of the middle ear
 - Cochleogram¹

Cochlear implants



Drugs with potential ototoxicity Targeting ear disorders



Cell & Gene Therapies



Physician Training



Inner Ear Imaging Equipment



Cutting-edge research facilities in a GLP-compliant environment

Extensive experience performing GLP-compliant research services

- AAALAC-accredited, OLAW-assured
- Board Certified Clinical Veterinarians & Veterinary Pathologists
- Good track record with FDA inspection
- Multiple species, including: rats, mice, guinea pigs, gerbils, mini swine, & sheep

¹ FDA specifications for auditory safety evaluation (Nonclinical Safety Evaluation of Reformulated Drug Products and Products Intended for Administration by an Alternate Route). Guidance for industry and Review Staff – Oct 2015).

About CBSET

CBSET is a state-of-the-art translational research institute providing high-quality collaborative GLP studies from proof-of-concept through regulatory filings and IND-enabling studies:

- Full preclinical programs, plus specific study design supporting a range of applications in therapeutic and device development
- OLAW-assured, AAALAC-accredited animal research Facilities

CBSET is based in Lexington (near Boston) and Grafton, MA (USA).

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About Cilcare

Cilcare is a biotech dedicated to harnessing auditory sciences to reshape the future of care via early diagnosis and targeted treatment.

Cilcare External Innovation supports its partners in the health and life-sciences sector in the development of new therapies to prevent and treat auditory-related diseases including inherited hearing loss, synaptopathy, ototoxicity, sensorineural hearing loss, and tinnitus.

Cilcare is based in Montpellier and Paris (France), and Lexington (near Boston), MA (USA).

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