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Cell Line for Drug Ototoxicity Screening and Hearing Research

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INNOVATION

Dr. Federico Kalinec of UCLA’s Department of Head & Neck Surgery has developed a cell line that expresses unique markers of sensory and supporting cells of the mammalian auditory organ, the organ of Corti. The cells, HEI-OC1 cells, are sensitive to drugs known to be ototoxic, such as aminoglycoside antibiotics and cisplatin, and unaffected by drugs known to be non-ototoxic. Thus, HEI-OC1 cells are useful for their applications in pharmacological drug research, chemical ototoxicity screening, and hearing research.

RELATED MATERIALS

- ▶ [A cochlear cell line as an in vitro system for drug ototoxicity screening. Audiol Neurotol. \(2003\)](#)
- ▶ [In vitro assessment of antiretroviral drugs demonstrates potential for ototoxicity. Hearing Research. \(2014\)](#)
- ▶ [Acetaminophen and NAPQI are toxic to auditory cells via oxidative and endoplasmic reticulum stress-dependent pathways. Hearing Research. \(2014\)](#)

CONTACT

UCLA Technology Development Group
ncd@tdg.ucla.edu
tel: 310.794.0558.



INVENTORS

- ▶ Kalinec, Federico

OTHER INFORMATION

KEYWORDS

cell line, ear, inner ear, ototoxicity, screening, drug discovery, pharmaceutical research, research tools, otolaryngology, organ of Corti

CATEGORIZED AS

- ▶ **Medical**
 - ▶ Research Tools
 - ▶ Screening
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 - ▶ Cell Lines

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