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## Cell Line for Drug Ototoxicity Screening and Hearing Research

Tech ID: 24290 / UC Case 2014-749-0

### 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 Neurootol. \(2003\)](#)
- ▶ [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. \(2014\)](#)

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### 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
  - ▶ Therapeutics
- ▶ **Research Tools**
  - ▶ Cell Lines

#### RELATED CASES

2014-749-0

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