



CHEMICAL COCKTAIL FOR INDUCING SENESCENCE IN HUMAN NEURONS TO PROMOTE DISEASE MODELING AND DRUG DISCOVERY

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The Invention

Provided herein are methods and compositions for inducing chemical senescence in neurons and methods of using chemically induced senescent neurons for modeling neurodegenerative disease and drug discovery. The methods include contacting human neurons with a culture medium comprising an inhibitor of DNA glycosylase 1, an autophagy inhibitor, and an HIV protease inhibitor to obtain an in vitro population of senescent neurons within about 4 days. When the neurons are obtained from a patient having a neurodegenerative disease, chemically induced senescent neurons obtained by these methods recapitulate cellular and subcellular phenotypes observed in individuals with the neurodegenerative disease.

Additional Information

For More Information About the Inventors

- [Su-Chun Zhang](#)

Tech Fields

- [Drug Discovery & Development : Disease models](#)
- [Pluripotent Stem Cells : Culture](#)
- [Pluripotent Stem Cells : Differentiation](#)

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