

# LONG NON-CODING RNAS (LNCRNAS) AS THERAPEUTIC TARGETS IN GLIOMA

Tech ID: 33130 / UC Case 2019-001-0

## TECHNOLOGY DESCRIPTION

LncRNAs exhibit high specificity to target tissues and cells, which may help to reduce toxic effects associated with cancer therapy. LncRNAs can be successfully targeted with antisense oligonucleotides (ASOs) to represent a new class of targets for tumor therapy.

UCSF researchers have developed a radiation modifier screen using CRISPRi to identify specific lncRNAs that sensitize glioma cells to radiotherapy. The invention also comprises methods for generating a human brain organoid model of malignant glioma.

## ADVANTAGES

- Potential to:
  - o increase efficacy of radiation therapy, a key adjunctive cancer therapy
  - o selectively inhibit glioma cell growth via lncRNA knockdown without toxicity to normal brain cells

## APPLICATION

- Method of treating malignant glioma and/or inhibiting growth / proliferation of glioma cells
- Enhancement of radiation therapy efficacy
- Method of screening therapeutic agents / radiotherapy sensitizers

## LOOKING FOR PARTNERS

To commercialize the technology

## STAGE OF DEVELOPMENT

Proof of concept

## RELATED MATERIALS

- ▶ [Compositions and Methods of Treating Glioma](#) - 04/11/2023

### CONTACT

Hailey Zhang  
[hailey.zhang@ucsf.edu](mailto:hailey.zhang@ucsf.edu)  
tel: .



### OTHER INFORMATION

#### KEYWORDS

lncRNA, long non-coding  
RNA, glioma, antisense  
oligonucleotide, ASO,  
radiation therapy

#### CATEGORIZED AS

- ▶ [Medical](#)
  - ▶ [Disease: Cancer](#)
  - ▶ [Screening](#)
  - ▶ [Therapeutics](#)

#### RELATED CASES

2019-001-0

DATA AVAILABILITY

Available under CDA

PATENT STATUS

Patent Pending

ADDRESS

UCSF

Innovation Ventures

600 16th St, Genentech Hall, S-272,  
San Francisco,CA 94158

CONTACT

Tel:

innovation@ucsf.edu

https://innovation.ucsf.edu

Fax:

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