

# Novel CAR-T Therapy for Glioblastoma

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## TECHNOLOGY DESCRIPTION

There are currently no effective therapies for glioblastoma (GBM). Median survival is < 18months. Previous studies targeting GBM with anti-EGFRviii CAR produced a consistent recurrence. EphA2 and IL13Ra2 are widely expressed in GBM but have imperfect specificity. Our inventors have thus developed a CAR-T cell therapy that recognizes EGFRviii+ cells and then kills in the presence of EPHA2 or IL13R $\alpha$ 2. This multi-antigen targeting strategy uses the synNotch "prime and kill" circuit.

## STAGE OF DEVELOPMENT

EGFRviii is IND approved with recruitment for phase 1 dose escalation in GBM patients ongoing.

## RELATED MATERIALS

- ▶ [SynNotch-CAR T cells overcome challenges of specificity, heterogeneity, and persistence in treating glioblastoma - 04/28/2021](#)

## PATENT STATUS

Country	Type	Number	Dated	Case
China	Published Application	115151268	10/04/2022	2020-184
European Patent Office	Published Application	4054596	09/14/2022	2020-145
European Patent Office	Published Application	3773632	02/17/2021	2018-141
European Patent Office	Published Application	3773623	02/17/2021	2018-142
European Patent Office	Published Application	3,773,633	02/17/2021	2018-143
United States Of America	Published Application	<a href="#">20210023138</a>	01/28/2021	2018-141
United States Of America	Published Application	<a href="#">20210023136</a>	01/28/2021	2018-142
United States Of America	Published Application	<a href="#">20210023139</a>	01/28/2021	2018-143
Australia	Published Application			2018-141
Canada	Published Application			2018-141
Australia	Published Application			2018-142
Canada	Published Application			2018-142
Australia	Published Application			2018-143
Canada	Published Application			2018-143

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## OTHER INFORMATION

### KEYWORDS

CAR-T, Glioblastoma, Rare disease, SynNotch, Multi-Antigen, EGFRviii, EPHA2, IL13R $\alpha$ 2

### CATEGORIZED AS

- ▶ **Medical**
  - ▶ Disease: Cancer
  - ▶ Therapeutics

### RELATED CASES

2018-141-0, 2018-142-0, 2018-143-0, 2020-145-0, 2020-184-0, 2023-191-0

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