COMPOSITIONS AND METHODS FOR MODIFICATION OF CELLS

Tech ID: 32783 / UC Case 2022-111-0

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20260008996	01/08/2026	2022-111
European Patent Office	Published Application	4522156	03/19/2025	2022-111

BRIEF DESCRIPTION

New chemistries are emerging for the direct attachment of complex molecules to cell surfaces. Chemistries that modify cells must perform under a narrow set of conditions in order to maintain cell viability. They must proceed in buffered aqueous media at the optimal physiological pH—typically pH 7.4—and within a temperature range of 4 – 37 ºC. Furthermore, these reactions must have sufficiently rapid kinetics to achieve high conversion even when confronted with the limits of surface diffusion characteristics. Due to these requirements, few chemistries exist that can attach molecules and proteins to live cells. There is a need for improved methods of attaching proteins to living cells.

UC researchers have developed a convenient enzymatic strategy for the modification of cell surfaces for targeted immunotherapy applications.

SUGGESTED USES

- attachment of complex molecules to cell surfaces.
- cell-based immunotherapies

RELATED MATERIALS

- Tyrosinase-Mediated Synthesis of Nanobody–Cell Conjugates - 06/01/2022

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Site-Specific Coupling Of Biomolecules Using Orthoquinones And Thiols

CONTACT

Terri Sale
terri.sale@berkeley.edu
tel: 510-643-4219.

INVENTORS

- Francis, Matthew B.

OTHER INFORMATION

CATEGORIZED AS

- **Medical**
  - Disease: Cancer
  - Research Tools
  - Therapeutics
- **Research Tools**
  - Other
  - Reagents

RELATED CASES

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