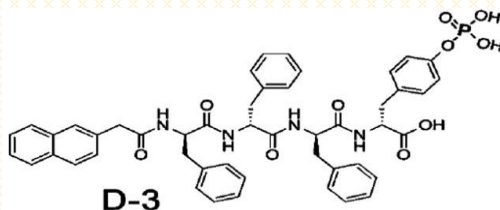


## 【Noteworthy Patent Introduction #5】

# Compound for selective removal of pluripotent stem cells

### Abstract

Invented is a method for **efficient and selective removal of pluripotent stem cells** from a cell population derived from pluripotent stem cells using poly-phenylalanine derivatives having a phosphate group (e.g. D-3 as below).



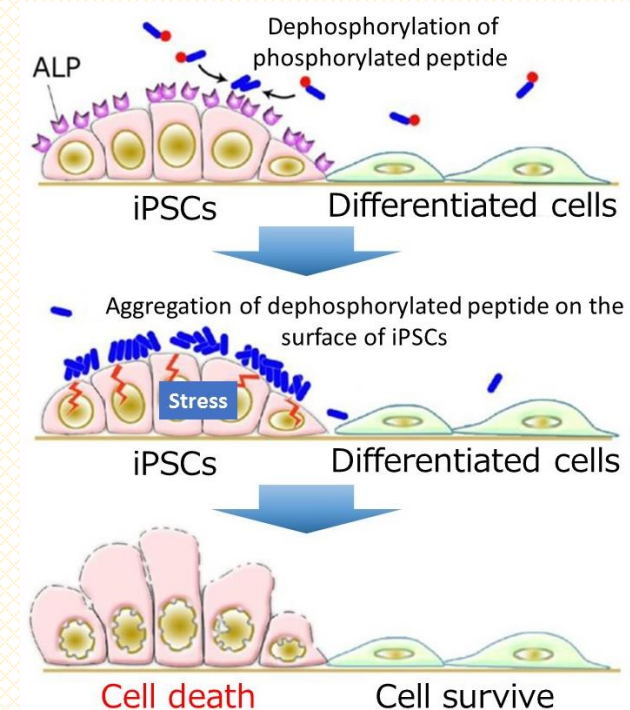
### Advantage

- D-3 induces selective cell death of iPSCs through its structural change on the surface of iPSCs after binding to cell-surface alkaline phosphatase (ALP), while having little effect on various non-iPSCs.
- D-3 treated population of iPSC-derived cells did not cause tumorigenesis in mice at least for 3-month observation period.
- D-3 has a promising potential to be a **low-cost and effective** anti-iPSC agent for the **safe clinical application** of iPSC-derived cells.

### Background

Residual iPSC cell-induced tumorigenesis has been a serious concern in the application of iPSC-derived cells for regenerative medicine.

An overview of selective removal of iPSC



**Patent Application** : PCT/JP2016/050946 (WO2016/114341)

**Inventor** : Hirohide Saito, et al. **Publication** : *Cell Chem Biol.* Volume 24, p685–694, June 2017 **Our Ref. Number** : AJ124