



## Clonal Culture of Human Pluripotent Stem Cells

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**The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a method to increase the cloning efficiency of stem cell culture using kinase inhibitors.**

### Overview

For researchers, cloning human embryonic stem (ES) cells is challenging because it requires growing new colonies from a single cell. One difficulty is very low cloning efficiency – less than 0.1 percent when growing the cells in defined, xenogen-free culture conditions.

### The Invention

UW–Madison researchers have developed a method to boost the cloning efficiency of any effective ES cell culture medium. The researchers screened small molecules and found they could increase efficiency rates using kinase enzyme inhibitors, e.g., protein kinase A/C/G inhibitors or a Rho-associated kinase (ROCK) inhibitor.

### Applications

- Culturing human embryonic or induced pluripotent stem cells

### Key Benefits

- Improves cloning efficiency
- Effective and economical

### Additional Information

#### For More Information About the Inventors

- [James Thomson](#)

#### Tech Fields

- [Pluripotent Stem Cells : Culture](#)

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