

# Macrophage Programming for Immunotherapy

Tech ID: 28866 / UC Case 2017-142-0

## BACKGROUND

Immunotherapy is one of the most important areas in modern medicine. Using antibodies, proteins, and cells, physicians are now able to target a range of conditions with specificity. UC San Diego researchers have recently developed a new process for engineering macrophages to possess a broad range of sensing and programmed actions for directed therapeutics.

## TECHNOLOGY DESCRIPTION

UC San Diego researchers have developed methods and processes for engineering macrophages to carry both response elements and effector modules that can provide directed immunotherapy. By modulating the cellular response profile, macrophages can now target cells that would otherwise evade detection and clearance. By relying on the natural phagocytic process, the therapeutic potential of this technology is enhanced and the off-target risks may be minimized.

## APPLICATIONS

Potential use in directed therapeutics for immunotherapy.

## ADVANTAGES

By relying on the natural phagocytic process, the therapeutic potential of this technology is enhanced and the off-target risks may be minimized.

## INTELLECTUAL PROPERTY INFO

A provisional patent has been submitted.

## PATENT STATUS

Country	Type	Number	Dated	Case
Patent Cooperation Treaty	Published Application	<a href="#">2019014419</a>	01/17/2019	2017-142

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## OTHER INFORMATION

### KEYWORDS

Cell therapy, Immunotherapy,  
macrophage, precision medicine, natural  
phagocytosis

### CATEGORIZED AS

- ▶ [Medical](#)
- ▶ [Therapeutics](#)

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2017-142-0