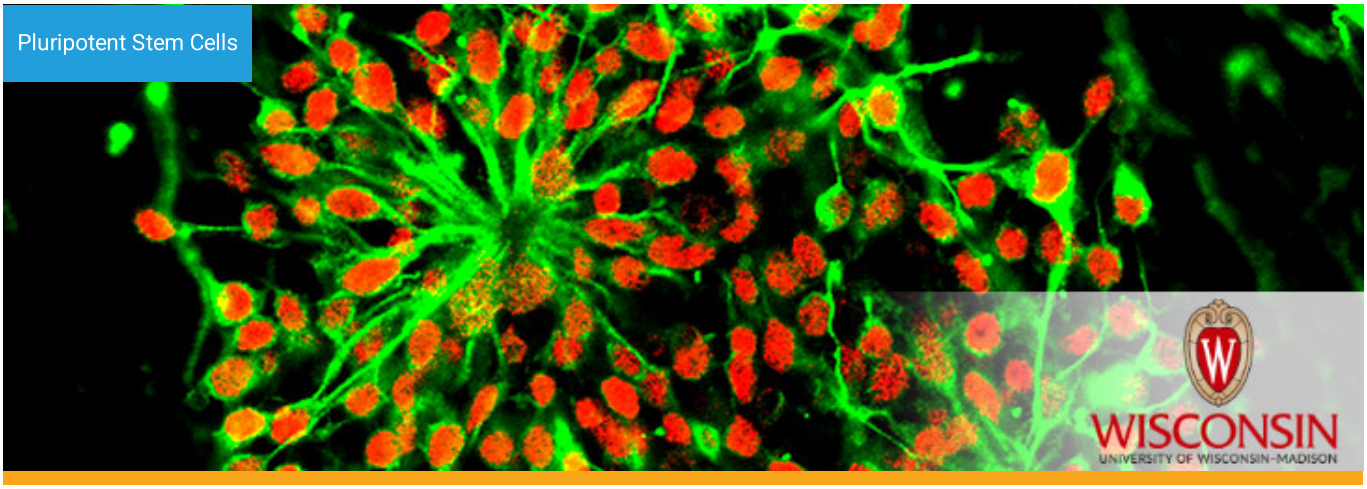

SIRPα Knockout iPSC-derived and CAR-comprising Macrophages with Enhanced Anti-tumor Activity

WARF: P250102US03

Inventors: Igor Slukvin, Portia Smith, Jue Zhang

The Invention

UW-Madison researchers have discovered new uses for macrophages produced without SIRPα. SIRPα is a ligand for the ubiquitously expressed “don’t-eat-me” signal molecule CD47. The inventors discovered that SIRPα-KO i-Macs are resistant to ‘macrophage exhaustion’, which is the property reported by others that the antibody-dependent phagocytic activity of macrophages falls off over time, even if re-exposed to the target agent. No resistant macrophage has been reported to date. SIRPα-KO i-Macs keep going, through 120 hours at least, and the researchers see renewed activity if they resupply Abs.

Additional Information

For More Information About the Inventors

- Igor Slukvin

Tech Fields

- Pluripotent Stem Cells : Differentiation
- Therapeutics & Vaccines : Anti-infectives (antibacterials, antifungals, antivirals)
- Therapeutics & Vaccines : Biologics

For current licensing status, please contact Andy DeTienne at adetienne@warf.org or 608-960-9857