Claims

1. A method for determining a therapeutically effective amount of cells administered to a subject having a condition, the cells being non-embryonic stem, non-germ cells that express one or more of oct4, telomerase, rex-1, or rox-1, and/or can differentiate into cell types of at least two of endodermal, ectodermal, or mesodermal germ layers, the method comprising assessing, following administration of the cells to the subject, an *in vivo* biomarker of activated macrophage in a subject *in vivo,* wherein the cells express and secrete one or more factors that modulate macrophage activation.

2. The method of claim 1, wherein the condition is selected from the group consisting of acute and chronic conditions in central nervous system injury, e.g., ischemic stroke, multiple sclerosis, Alzheimer's Disease, ALS, Parkinson's Disease, hypoxic-ischemia, neonatal hypoxic ischemia, and traumatic brain or spinal cord injury.

3. A method for constructing a cell bank, the method comprising assaying cells for a desired potency for modulating macrophage activation and expanding and storing the cells having the desired potency for future administration to a subject, the cells being non-embryonic stem, non-germ cells that express one or more of oct4, telomerase, rex-1, or rox-1 and/or can differentiate into cell types of at least two of endodermal, ectodermal, and mesodermal germ layers.

4. A method for constructing a cell bank, the method comprising expanding and storing cells for future administration to a subject, the cells being non-embryonic stem, non-germ cells that express one or more of oct4, telomerase, rex-1, or rox-1 and/or can differentiate into cell types of at least two of endodermal, ectodermal, and mesodermal germ layers, the cells having been validated for having a desired potency for modulating macrophage activation.

5. A method for drug discovery, the method comprising assaying cells for a desired potency for modulating macrophage activation, selecting the cells having the desired potency and exposing said cells to an agent to assess the effect of the agent on the ability of the cells to modulate macrophage activation, the cells being non-embryonic stem, non-germ cells that express one or

more of oct4, telomerase, rex-1, or rox-1 and/or can differentiate into cell types of at least two of endodermal, ectodermal, and mesodermal germ layers.

6. The method of any one of the preceding claims, wherein the cells were derived from human bone marrow.