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(54) **Title:** POTENCY ASSAY

(57) **Abstract:** A method for assessing the potency of MSCs to produce anti-inflammatory cytokines in response to a pro-inflammatory stimulus. The method comprises stimulating the MSCs with one or more proinflammatory cytokines, such as TNF- α , for a duration of time and then identifying and quantifying the production of anti-inflammatory cytokines. MSCs that produce potent levels of anti-inflammatory cytokines in response to TNF- α can be used in treatments for aging-related conditions, including aging frailty and Alzheimer's disease, and can also be used to treat corona virus infections. The method shows that TNF- α induced MSCs robustly secrete several anti-inflammatory cytokines, including IL-1 receptor antagonist (IL-1RA), IL-10, and granulocyte colony stimulating factor (G-CSF).

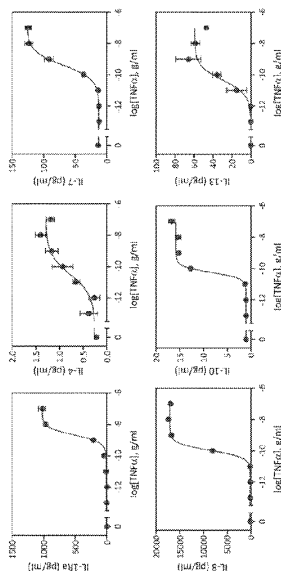


FIG. 1